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HISTORICAL INFLATION PROGRAM. (A COMPUTER PROGRAM GENERATING HI--ETC(U)

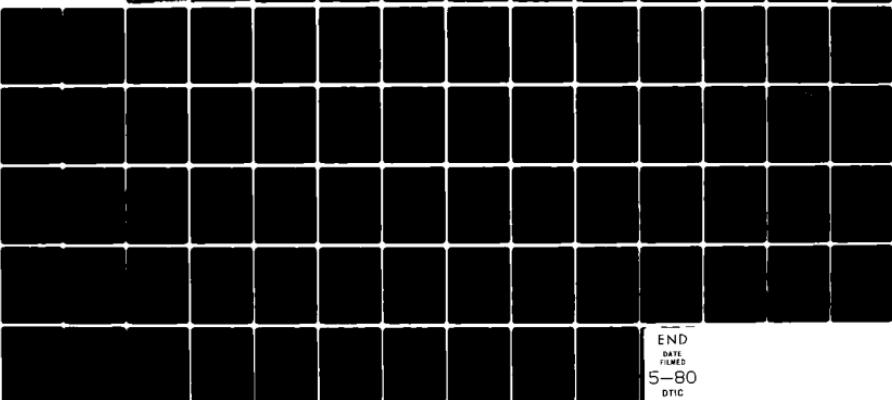
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report extends and revises Technical Report 79-1 which presents and describes the Historical Inflation Program, a computer program generating historical inflation indices for Army aircraft. The program can be updated monthly, is easily revised for changes in Bureau of Labor Statistics methods, and is capable of handling data for all fiscal year formats. Output is expressed as monthly, quarterly, Fiscal Year, and Calendar Year inflation indices (in Calendar Year 1967 base) and inflation factors (in any Fiscal Year base). This report contains updated tables of inflation factors, expressed in a FY 79		

20. ABSTRACT.

base. These indices and factors provide a means of adjusting historical cost data for the procurement of Army Aircraft to constant year dollars. Additional features include: computations for the Derivation of Revised Weighting Factors, detailed indices enabling the adjustment of historical Labor and Material cost separately, a discussion of aggregate weighting factors for Labor and Materials, (including trends from sensitivity analysis with more background materials), and additional documentation aimed at making the report useful to a large cross section of the DOD/Rotary Wing Aircraft Community.

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The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision unless so designated by other documentation.

ACKNOWLEDGEMENTS

The author extends his appreciation to the Kansas City Regional Office of the Bureau of Labor Statistics, U.S. Department of Labor, for special assistance with wage and price data.

Credit is due Mr. Ralph Lilge, USAAVRADCOM, who played a primary role in automating the Historical Inflation Program in 1975.

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I. APPLICABILITY. The inflation indices and factors published in this report are applicable to the adjustment of historical costs for the procurement of Army aircraft. These costs are currently funded by the Aircraft Procurement, Army and Other Procurement Army appropriations.

II. AN OVERVIEW OF THE HISTORICAL INFLATION PROGRAM.

A. History.

The Historical Inflation Program for Army aircraft procurement was developed using a sequence of documents, the first being Aerospace Price Indices, by H.G. Campbell (RAND # R-568-PR, 12/70). Essentially, the RAND document established a basis for the construction of general indices, identified items of special interest and concern, and indicated that no substitute exists for thorough analysis of the specific items being characterized by an historical index. Several indices, designed specifically for rotary wing aircraft, have been developed for the adjustment of procurement cost since that time by the United States Army Aviation Systems Command, and this function has been carried over to the Components and Operational Studies Branch, Cost Analysis Division, Office of the Comptroller, USATSARCOM.

The current indices are based on research done in the period 1972 to date. In July 1973, the Office of the Comptroller, Cost Analysis Division, made a study of materials used in the Army helicopter systems then, or most recently, in production. Cost Information Reports were assembled, and contractors were asked to supply lists of materials for both airframe and engine, on the basis of contribution to weight. Contractor technical and engineering personnel provided assistance with data interpretation and definitions for items whose composition was unclear from engineering documents and Detailed Weight Statements.

The following aircraft were selected:

UH-1H	OH-6A	AH-1G
CH-47C	OH-58A	CH-54B

This selection of aircraft is deemed typical for several reasons. First, the six helicopter systems listed above make up the majority of the U.S. Army Air Order of Battle listed in Section III. Second, a number of these aircraft had been produced on a long term, continuing basis in previous versions. And, third, and most important, they are among the systems most likely to be used in developing Cost Estimating Relationships for new systems by use of parametric techniques.

The September 1973 Historical Inflation Cost Research Report, cited in the references, was the first report to make full use of this information. It was updated by the August 1974 Cost Research Report, and then by a series of expanded analyses under current title, Historical Inflation Program, since that time. A list of the assumptions and changes in methodology over the period referenced are included in the body of the Technical Section.

B. Construction of Indices - Methodology.

The indices are developed by a stepwise, building process, which computes the contributions to cost on a weighted value-added basis.

1. First, the contribution to cost of small parts and other purchased equipment is calculated.

2. Next, the cost contribution of purchased parts is combined with that of raw materials to get the cost of purchased materials.

3. Purchased material cost is then combined with contractor labor cost to compute the index for products such as engine or airframe.

4. The indices for engine, airframe, and avionics are combined to get an overall index for aggregate aircraft.

C. Indexing Technique.

The procedure used is "Cost-Weighting". The information obtained from 1973 research on "helicopter materials" established percentages based on weight. Because the indices used to track material costs are based on monetary considerations (e.g., Producer Price Index; Wages, by Standard Industrial Code), percentages by weight had to be transformed into percentage contributions to cost, if PPI and SIC inflation factors were to be applied directly. Based on the premise of profit maximization, contractors should tend to minimize the use of expensive materials subject to maintaining acceptable performance standards; essentially, materials with a high cost per unit weight ration would be used sparingly. Adjusting a percentage based on weight using a monetary index would not only result in an improper index initially, but also one with diminishing reliability. The latter bias is avoided by calculating the contribution to cost, instead of merely the contribution to weight.

D. Weighting Factors. Although the model is developed by an iterative, stepwise process, the revised weighting factors in the table (at the end of Appendix B) implicitly include all calculations. The index, as stated, is merely the direct sum of

the products of the weights and their corresponding material index values. The development of weighting factors is illustrated in the Technical Section.

2. Data. The data used appear in two different forms. Yearly data are presented by Calendar Year 1947 to date, and monthly data for 1967 to date. The yearly data, pre 1958, are condensed into three columns; the data for 1958 and later are presented in an 18 column format - 14 columns for material inputs, and 4 for labor. Beginning with report 76-1B, all columns of the data set have been identified by PPI and SIC code, as well as a verbal description in the column heading. PLEASE NOTE: The data, their characterization, and any redefinition, by the Bureau of Labor Statistics over the years, are tracked in line diagram C-2.

3. Validity and Firmness of Data.

The Producer Price Index and Wage Data was supplied by the Kansas City Regional Office of the Bureau of Labor Statistics, U.S. Department of Labor. The data comes in three types of published form: (1) a cumulative history covering all relevant past years on a monthly basis. (2) A yearly edition (such as Wage and Price Index Annual Supplement) which lists the previous 12 months, and (3), monthly publications which list the most current month and several other months for comparison.

For data to be "firm" it must be at least 18 months old, in most cases, because it is benchmarked and adjusted after the fact. For example, small samples are taken throughout the year; however, during one month (the benchmark month), a much more comprehensive

sample is taken. Due to its significantly larger sample size, the benchmark month's sample is felt to be more representative than those of other individual months, and if the benchmark diverges from the pattern, the other months are adjusted proportionately to conform to its base as benchmark.

The data in the cumulative history "type" publication is felt to be firm or "final". Basically, such publications provide a chronological listing of all firm data available for the past history of those indices. However, the data in such publications is usually 18 to 24 months behind the current period. The data for each month listed in the Annual Supplements is not necessarily firm because benchmarks occur during the Calendar Year, and at different times for different series. Adjustments may not have been made before the Annual Supplements are published. The monthly publications, which contain information on the most current periods, are even more tentative. In general, the Producer Price Index Data are firm before Wage Indices for the corresponding month, probably due to the fact that it is easier to define and measure price changes for commodities than for human skills.

C. Particular Problems.

1. The Wage Data for the period CY 1971-CY 1973 changed, in many cases, during FY 75-FY 76. The wage-price freeze disallowed certain salary and wage increases, but a number of these were awarded on a retroactive basis based on legal decisions rendered several years after the fact. Because such payments involved costs directly attributable to labor services during the

period, these payments had to be incorporated in the indices to provide an accurate measure of labor earnings.*

2. With the September 1978 issue of Employment and Earnings, the reporting categories for a number of types of production labor were changed. In effect, the 1967 Standard Industrial Classification Code has been supplanted by the 1972 SIC Code.

The Changes are as follows:

<u>SIC Code & Title</u>	<u>-to-</u>	<u>SIC Code & Title</u>
3674,9 Electronic Devices & Components		367X Electronic Components and Accessories
3722 Aircraft Engines and Engine Parts		3724 Aircraft Engines and Engine Parts
3723,9 Aircraft Parts and Equipment		3728 Aircraft Equipment

The reclassification had little or no impact on this study due to the essential similarities, by definition, of the old and new labor categories.

3. Potential discrepancies in the data set were eliminated by comparing data elements with the most recent data on microfiche for the 14 material and 4 labor categories used in the report. All data were verified to be the latest and most accurate available, on 20 January 1979.

*See ELS Bulletin No. 1312-10, Employment and Earnings 1909-75 for a detailed explanation (esp. p. 769).

E. Change in Content from the Previous Reports.

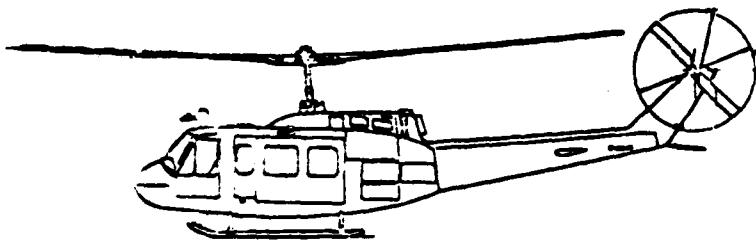
A printout of the computer program used for the Historical Inflation Program is not included in this report, for two reasons.

~~First~~ It was found that a list of structural equations would better serve the purpose of elucidating the model. At the same time, with the reduced form equations and clearly identifiable data sets, any index figure can be checked by direct calculation (See Appendix B, page B-4). Second, direct duplication of the deck from the original is more accurate and efficient than keypunching copies from the program source listings, should such an external need ever develop.

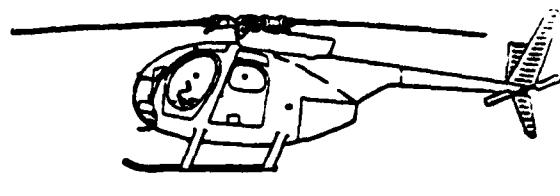
A sensitivity analysis, which displays the effects resulting from a change in the relative weights of labor and material in the Historical Index, has been included in this revision. The percentage contribution to cost attributable to labor and materials varies among aircraft systems, and the values used in this report--.375 (materials) and .622 (labor)--are an average for the six systems referenced. The sensitivity analysis yields a measure of the extent to which the index for a single aircraft system would vary, if that system is built with an aggregate labor/material mix which differs from the six system average. The accuracy of the re-weighted index, however, also requires that the other assumptions be well satisfied, i.e., the 14 material and 4 labor indices are typical of the system being reviewed. Because such weighting is a concern in developing estimates in inflated dollars, the effect of such "weighting changes" should be of significant interest to many readers.

DATA CONCERNING:

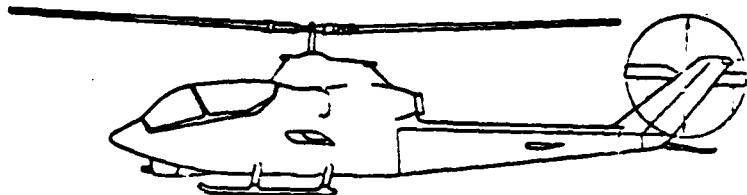
The Material Content of U.S. Army Helicopter Systems



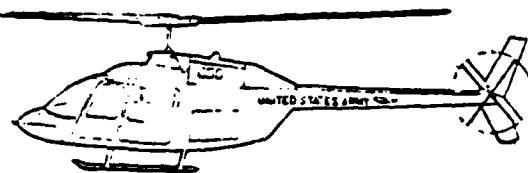
UH-1H "HUEY"



OH-6A "CAYUSE"

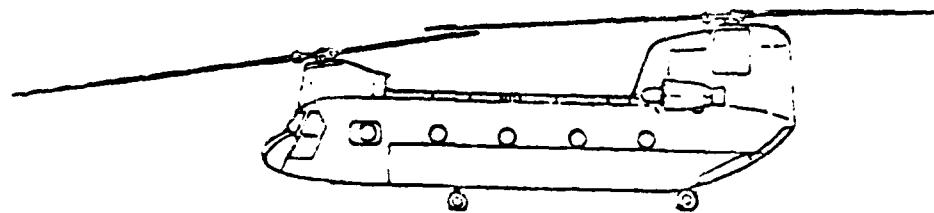


AH-1G "COBRA"

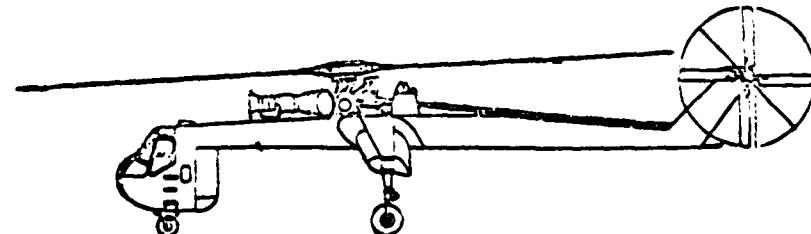


Da-38A "KIOWA"

U S A R M Y A I R C R A F T



CH-47C "CHINOOK"



whg

CH-54B "SKYCRANE"

Air Order of Battle

United States Army - Quantities and Types of Aircraft

ROTARY WING AIRCRAFT

<u>System Designation</u>	<u>Popular Name</u>	<u>Approx Empty Wt.</u>	<u>No. of Aircraft</u>	<u>Percent of Fleet</u>
AH-1	"COBRA"	5,800 lbs.	800	10.2%
CH-1	"HUEY"	5,100 lbs.	4,200	53.2%
CH-6	"CAYUSE"	1,200 lbs.	450	5.7%
OH-58	"KIOWA"	1,750 lbs.	1,900	24.1%
CH-47	"CHINOOK"	19,500 lbs.	430	5.5%
CH-54	"SKYCRANE"	19,800 lbs.	75	1.0%
UH-60A	"BLACK HAWK"	10,500 lbs.	29	.3%
AH-64A	"ADV. ATTACK"	10,400 lbs.	0	0%
			7,884	100.0%

Sources: FM 101-20 (UNCLASSIFIED).
World Combat Aircraft Directory
Doubleday and Co.,

USAACOM COST ANALYSIS DATA 1976

ANSAN-CCE 31 July 1973

MEMORANDUM TO: Mr. Gerald Dockins, Acting Chief, Estimates and Studies Branch
FROM: Mr. Edward P. Laughlin, Chief, Cost Analysis Division
SUBJECT: Material Composition Analysis of U.S. Army Helicopters, July 1973

1. On 6 June 1973, this office received a request from Mr. W.J. Tropf, AMC Comptroller Office, Cost Analysis Division, for the material composition of a UH-1N Helicopter. On 18 June 1973, Chief, USAACOM Comptroller Office, Cost Analysis Division requested a similar analysis be performed on the following Army helicopters:

- a. CH-47C.
- b. OH-6A.
- c. OH-58A.
- d. AH-1G.
- e. CR-34B.

2. A search of the technical data files and aircraft drawings failed to produce the desired data. The analysis was completed with the assistance of AFSCOM Systems Engineering Division, Directorate of R&E and pertinent U.S. Army Plant Activities. Contractors were also contacted during the data search, and others. The data obtained are a combination of expert opinion, engineering estimates and contractor data obtained under previous contracts.

3. The following Cost Analysis personnel were assigned to this project:

Aircraft Model	Assigned To
UH-1N	Gerald Dockins
CH-47C	James Cadell
OH-6A	John Thillmany
OH-58A	Gerald Dockins/James Cadell
AH-1G	Gerald Dockins/James Cadell
CR-34B	James Cadell

Material Composition Analysis
of Army Helicopters
(Dated July 1970)
Material (Pounds)

U.S. Army Helicopters.

Aircraft Model	Dry Weight	Aluminum	Steel	Magnesium	Titanium	Copper	Brass	Bronze	Lead	Tungsten	Nickel Alloy	Nonmetallic
CH-4C	5,394	1,888	1,780	216	108	593	0	0	216	0	0	593
OH-2A	4,973	1,579	1,718	280	70	400	100	0	100	0	0	726
OH-6A	1,633	666	218	46	-	30	23	3	0	1	25	150
OH-5A	1,586	536	543	55	15	101	0	0	43	0	0	293
CH-47C	19,403	8,312	7,989	1,304	63	676	4	16	0	45	0	2,074
CH-54B	17,765	8,931	3,860	72	970	516	20	23	1	0	788	4,384

U.S. Army Turbine Engines.

Aircraft Model	Dry Weight	Aluminum	Steel	Magnesium	Titanium	Copper	Nickel Alloy	Nonmetallic	Stainless Steel	Steel Alloy
T53-L-13	527	79	316	80	26	3	0	23	0	0
T63-A-5A	138	1	106	26	0	0	0	3	0	0
T63-A-700	138	1	108	26	0	0	0	3	0	0
T73-L-700	590	0	516	50	20	10	0	0	0	0
T73-L-700	981	1	0	0	0	0	290	0	596	94

U.S. Army Helicopter Airframe, Only.

Aircraft Model	Airframe Weight	Aluminum	Steel	Magnesium	Titanium	Copper	Brass	Bronze	Lead	Tungsten	Nickel Alloy	Nonmetallic
AM-1C	4,867	1,809	1,464	136	82	590	0	0	216	0	0	570
UTR-1H	4,446	1,500	1,402	200	44	400	100	0	100	0	0	700
OH-6A	1,025	666	109	20	1	30	23	3	0	1	25	147
OH-5A	1,448	536	434	29	15	101	0	0	43	0	0	290
CH-47C	19,303	8,312	6,969	1,204	23	656	4	16	0	45	0	2,072
CH-54B	17,803	8,928	2,480	72	970	516	20	23	1	0	209	4,384

TABLE 3 **

SUMMARY OF AIRFRAME AND ENGINE CIR DATA*

	(1) Airframe	(2) Engine
Labor	62.08%	40.65%
Material	<u>37.92%</u>	<u>59.15%</u>
Total Cost	100.00%	100.00%
New Material	41.88%	70.58%
Purchased Equipment	<u>58.12%</u>	<u>29.42%</u>
	100.00%	100.00%

(1) Airframe factors were obtained from a sample of 15 CIR reports representing the AH-1, CH-47, CH-54, OH-6, and OH-58 aircraft systems.

(2) Engine factors were obtained from a sample of 14 CIR reports representing 11 different turbine engine configurations procured from Lycoming, Allison, General Electric, and Pratt & Whitney.

*As adjusted by Labor and Material price movements.

** From HISTORICAL INFLATION INDICES FOR ARMY AIRCRAFT, U.S. Army Aviation Systems Command, St. Louis, 1974, p. 11.

TECHNICAL SECTION

IV. ANALYSIS: (TECHNICAL SECTION).

A. Chronology. Previous efforts related to the development of inflation indices include Aerospace Price Indexes by H.G. Campbell, RAND Corporation, December 1970 (Reference 1) and two Cost Research Reports: Historical Inflation Indices for Army Aircraft, Cost Analysis Division, Office of the Comptroller, US Army Aviation Systems Command, September 1973 (Reference 4), and Historical Inflation Indices for Army Aircraft, Cost Analysis Division, Office of the Comptroller, US Army Aviation Systems Command, August 1974 (Reference 5).

2. Characteristics of the RAND Report.

a. Specific Producer Prices and Price Indexes (Reference 8) and Employment and Earnings (Reference 2) data have been selected as proxy series for similar commodity and labor categories experienced in the procurement of Army aircraft. Aircraft inflation indices are constructed from a weighted average of these proxy series. The weighting factors for this average are derived from estimates of the relative contribution to the total aircraft cost made by each component (commodity or industry labor group) comprising the index. The index is thus a "cost-weighted" series.

b. A 2½ percent compounded annual rate for growth of overhead ratios is assumed.

c. No adjustment is made for productivity increases.

d. Indices are developed on a Calendar Year basis.

2. Characteristics of the September 1973 Cost Research Report.

a. As with the RAND Report, aircraft inflation indices have been constructed from a weighted average of Producer Prices and Price Indexes and Employment and Earnings data selected as proxy series for their similarity to those commodities and labor categories experienced in the procurement of Army aircraft. Weighting factors are proportional to the relative physical weights or masses, rather than the relative costs (as in the RAND Report), of commodities comprising the "composite material" portion of the index. Thus, the "composite material" portion of the index represents a "weight-weighted" series.

b. Like the RAND Report, a 2½ percent annual growth in the overhead ratio is assumed.

c. No adjustment is made for productivity increases.
d. Indices are developed on a Calendar Year basis.
e. For years for which certain specified Producer Price Indexes were unavailable, data has been projected from adjacent years.

3. Characteristics of the August 1974 Research Report.

a. As before, Producer Prices and Price Indexes and Employment and Earnings data have been selected as proxy series most similar to those commodities and labor categories experienced in the procurement of Army aircraft. The indices have been constructed from a weighted average of these proxy series utilizing the weighting factors used in the September 1973 Cost Research Report. The "composite material" portion of the index represents a "weight-weighted" series.

- b. Unlike RAND and the September 1973 Cost Research Report, no adjustment for overhead growth is assumed.
- c. No adjustment for productivity increases is assumed.
- d. Indices have been extended to FY 1974 by assuming that data for the September 1973 Cost Research Report represented December and hence the Fiscal Year midpoint, rather than the annual average, of each calendar year.
- e. For years for which certain specified Producer Price Indexes were unavailable, data has been projected from adjacent years.

B. Data Sources. Data sources for this report are Producer Prices and Price Indexes (reference 8) and Employment and Earnings (reference 2). To insure that the latest revisions were incorporated into the data base, data was obtained from the Bureau of Labor Statistics Information Center, and Annual Supplements to the Producer Prices and Price Indexes. For Employment and Earnings, data for any given month was obtained from the latest available source. Data used in this report are displayed in Appendices D, E, G, and H.

C. Methodology.

1. Overhead and Productivity Adjustments. On the basis of data covering a ten year period, the RAND Report concluded that there exists a secular growth trend of 2½ percent per year in the production overhead rate. The report also concludes that there has been little, if any, improvement in productivity to counteract the observed trend in overhead growth. This conclusion appears to

be unwarranted, particularly in light of productivity gains recorded (as measured by Industrial Production Indices) for similar sectors of industry. Thus, in order not to unduly bias the results of the analysis, this report makes no adjustment for either overhead growth or improvements in productivity.

2. Revision of Weighting Factors. From a number of Cost Information Reports, the following weighting factors were developed and reported in the September 1973 Cost Research Report. For the Airframe:

.575) Raw Material + (.622) Labor 3723,9 (3728)
= Purchased Equipment

.582) Purchased Equipment + (.418) Raw Material
= Total Material

.378) Total Material + (.622) Labor 3721 = Total Airframe

For the Engine:

.599) Raw Material + (.401) Labor 3723,9 (3728)
= Purchased Equipment

.295) Purchased Equipment + (.705) Raw Material
= Total Material

.599) Total Material + (.401) Labor 3722 (3724)
= Total Engines

And for Avionics:

.315) Material + (.685) Labor 3674,9 (367x) = Total Avionics

In the previously published indices, the weighting factors used to develop the material portion of the indices were made proportional to the relative physical weights of the various commodities used in the construction of the aircraft. The material portion of these indices thus represent a "weight-

"weighted" series. In order to be consistent with the intended purposes of an inflation index, the methodology in this program uses index weighting factors proportional to the numerical products obtained from multiplying the relative physical commodity weights by the appropriate base year cost per pound. This yields a "cost-weighted" index giving more weight to such expensive commodities as titanium. Unfortunately, however, price per pound data are not published in Producer Prices and Price Indexes for each of the commodities used in constructing the indices. To overcome this difficulty, the per pound price is estimated from the available data of the most closely related commodities. To minimize the effect from related commodities which have relatively little economic impact, each price per pound estimate has been developed from a weighted average of available data utilizing the Bureau of Labor Statistics 1975 revised relative weights published in the 1976 Annual Supplement to Producer (Formerly Wholesale) Prices and Price Indexes. The available data then constitutes a weighted sample from which a surrogate price per pound is computed for the Producer Price series in question. See Appendix A for the Computations for the Derivation of these Revised Weighting Factors, along with their associated cost contribution per pound.

3. Construction of Indices.

a. Calendar Year 1967 has been taken as the base of these indices because this year represents the approximate midpoint of the period (1958-1978) for which the data supports the develop-

ment of each of the indices, including those which account for avionics. Furthermore, 1967 conforms to the base used by the Bureau of Labor Statistics for Producer Price Indexes.

b. Appendix B contains the current Producer Price Index series, Earnings series, and the associated weighting factors used in the construction of the indices published in this report. Since some of these series have been in existence for only a limited time, other closely related series have been substituted with appropriate mathematical adjustments to insure continuity of the indices. This technique is considered preferable to the synthesis of data by projection from adjacent years. Appendix C depicts the historical flow and identifies the effective dates of series conversions, for the Producer Price Index and Earnings data used in the development of the indices published in this report.

c. The term "aggregate" has been selected to indicate inflation indices applicable to the combined Airframe and Engine (aggregate Air Vehicle Excluding Avionics) and to the combined Airframe, Engine, and Avionics (Aggregate Air Vehicle Including Avionics) to avoid confusion with the term "composite" as in "composite escalation indices". Aggregate indices are based upon standard 70-20-10 weighting (see Reference 6) of the Airframe, Engine and Avionics Indices respectively. Aggregate indices are intended for the adjustment of historical cost data for which the distribution of costs for the Airframe, Engine, and Avionics components is unavailable.

d. A new section depicting the raw material portion of

the inflation indices is published as Appendix I. It is intended for applications requiring greater accuracy. Appropriate labor indices can be obtained from the Bureau of Labor Statistics Employment and Earnings series (Reference 2) as follows:

<u>Labor Category</u>	<u>1967 SIC Code</u>	<u>1972 SIC Code</u>	<u>Industry</u>
Airframe Contractor	3721	3721	Aircraft
Airframe Subcontractor	3723,9	3728	Other aircraft part & equipment
Engine Contractor	3722	3724	Aircraft engines & engine parts
Engine Subcontractor	3723,9	3728	Other aircraft parts & equipment
Avionics	3674,9	367X	Other electronic components
Aggregate Air Vehicle Excluding Avionics	372	372	Aircraft and parts

e. The basic Computational Methodology is as follows :

(1) For Components: Airframe, Engine, and Avionics.

(a) Calendar Year indices are computed using sum of weighted calendar year labor and material indices.

(b) Fiscal Year indices are computed in a manner similar to Calendar Year, but the yearly fiscal averages are generated from the monthly data.

(c) Quarterly Indices are computed by averaging three months data from the monthly data set.

(d) Monthly indices are computed by direct calculation using monthly data. It is a weighted average of monthly figures computed using the same methodology as in computing the Calendar

Year indices.

For additional information, see Appendix B.

(2) Aircraft System Cost

The inflation indices for "Aggregate Vehicle" and "Aggregate Vehicle without Avionics" are produced by combining the three separate indices:

<u>Component</u>	<u>Relative Weight</u>
Airframe Index	70%
Engine Index	20%
Avionics Index	10%
Aggregate Vehicle	100%

<u>Component</u>	<u>Relative Weight w/o Avionics</u>
Airframe Index	78%
Engine Index	22%
Aggregate Vehicle without Avionics	100%

b. Reduced form equations are displayed in Appendix B, page B-3.

$$\begin{array}{r} (.7) \therefore (.2 + .7) = .78 \\ (.2) \therefore (.2 + .7) = \underline{.22} \\ \quad \underline{1.00} \end{array}$$

V. DESCRIPTION OF COMPUTER PROGRAM AND ASSOCIATED APPENDICES.

The Historical Inflation Program is a computer program used to generate historical inflation indices for Army aircraft and their major subsystems. Appendices D and G contain the annual data used by the program, while the monthly data, commencing July 1967, are in Appendices E and H. Producer Price Index and Earnings data in these Appendices have been arrayed into columns with the same numerical code sequence used in Appendix B. Historical inflation indices and factors are published in Appendix F. Fiscal Year, quarterly, and monthly indices have been developed from the appropriate monthly data. A section containing the raw material portion only of these indices is published as Appendix I. The labor portion of these indices may be obtained by applying the methodology described in paragraph III.C.3 d, to the data contained in Appendices D and E.

VI. SENSITIVITY ANALYSIS

Many considerations are important when constructing Historical Indices for tracking purposes. These certainly include the following:

a. The nature of the items chosen to comprise the index.

(1) How typical or representative the items are.

(2) How closely the proxy items approximate the actual items, if indices for the actual items are not obtainable.

(3) The number of items used, and the detail in the analysis which produced the indices.

b. The determination of the percent contribution to cost - "Cost Drivers".

c. The weighting factors employed in the overall analysis.

A difficult problem confronting cost analysts, who must determine the validity of an historical index for tracking purposes, relates to aggregate labor/material weighting factors. In tracking major weapons systems, the ratio is often stated as say 40/60 - that is 40 percent material and 60 percent labor - as percent contributions to cost. Because it is difficult for analysts to determine the "correct" aggregate mix of labor and material, being external to the project, the aggregate split is certainly of interest.

The value for any index depends on three factors:

a. The number of factors employed, and the quality and depth of the analysis.

b. The values for each component of cost used in the construction of the index.

c. The weights, or levels of importance, given to the factors, individually and collectively.

The objective of this sensitivity analysis is to shed some light on the way in which the aggregate labor/material split affects the index, which has been a controversial issue for some time. Using a set of recursive linear equations, the effect on the historical inflation index, for airframe resulting from varying the aggregate weighting scheme was calculated, in both raw and percentage terms. The calculations were made using a Wang system 2200 minicomputer, and a sample printout follows. The results provide evidence that the key to a successful index resides in item (i), the number of factors empicyed, and the quality and detail in the analysis used in preparing the index. Because wages are often tied to the Producer Price Index, or other price indices, in labor agreements, it is not surprising that aggregate weighting percentages for labor and material might not be an extremely sensitive issue. However, the calculations provide strong support

for the position that the identification of cost components and the depth and quality of detail in an analysis are of paramount importance, when developing an index to be used in controlling the cost of a major weapon system.

***** S E N S I T I V I T Y A N A L Y S I S *****
 (SENSITIVITY OF AIRFRAME INDEX TO CHANGES IN GROSS WEIGHTING FACTORS)

CALENDAR YEAR 1978

GROSS MATL	GROSS LABOR	PURE MATL	PURE LABOR	NEW INDX	CURR INDX	PERCENT CHANGE
275	6228	.2411	.7588	2.1471	2.1470	0.00
280	8600	.1668	.8931	2.1659	2.1470	0.88
250	7500	.1408	.8591	2.1611	2.1470	0.36
230	7000	.1777	.8222	2.1559	2.1470	0.41
150	6500	.2175	.7824	2.1504	2.1470	0.15
400	6000	.2603	.7396	2.1444	2.1470	-0.12
450	5500	.2059	.6940	2.1380	2.1470	-0.41
500	5000	.2545	.6455	2.1312	2.1470	-0.73
550	4500	.4059	.5940	2.1239	2.1470	-1.07
520	4000	.4603	.5496	2.1162	2.1470	-1.42
510	3500	.5175	.4824	2.1081	2.1470	-1.80
530	3000	.5777	.4222	2.0998	2.1470	-2.19
500	2500	.6408	.3591	2.0910	2.1470	-2.66
500	2000	.7057	.2931	2.0817	2.1470	-2.81
510	771 = 7700	1.722 = 5.204	1.722 = 5.204	NEW MHT IND = 4928		

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APPENDIX A
COMPUTATIONS FOR THE DERIVATION
OF REVISED WEIGHTING FACTORS
FOR THE HISTORICAL INFLATION PROGRAM

A 1

COMPARATIVE PRICE POSITION OF
REVISSED WHOLESALE PRICING
FOR THE HISTORICAL INDUSTRY PROGRAM

PPC CODE	Commodity ¹	1967 Price Per Pound		Product ³	Weighted ⁴ 1967 Price, Per Pound
		Weight ²	Price Per Pound		
07 11 01 01	RUBBER AND PLASTIC PRODUCTS				
02	LATEX				
03	No. 1 Ribbed Smoked Sheets	.2642	.006	.001585	.2376
04	No. 2 Ribbed Smoked Sheets	.1902	.009	.001793	
02 11	No. 3 Amber Blanket	.1951	.021	.004097	
12	Butyl, Regular	.1820	.021	.003822	
13	Neoprene, GN Type	.25	.012	.003	
15	Styrene Butadiene, Not	.41	.020	.008199	
03 21	Polybutadiene, Non-Staining Whole Tire Reclaim	.2224	.021	.004671	
03 22		.2476	.009	.002228	
03 23		.113	.009	.001017	
10 13 02 62		.128	.128	.030412	
10 13 02 64	SHEETS, C.R., CARBON			.0737	.0737
10 15 01 41	SHEETS, C.R., SWAGING			.5531	.5531
10 15 01 53	STEEL CASTINGS				
10 15 01 11	CLOSED DIE FORGING'S				
	Ingot Molds			.0497	.0497
10 22 01 11	LEAD, PIG, COMMON				
10 22 01 51	MAGNESIUM, PIG INGOT			.3595	.3595
10 25 01 01	ALUMINUM SHEET			.4185	.4185

PPI CODE	Commodity ¹	1967 Price Per Pound	Weight ² Per Pound	Product ³ Per Pound	Weighted ⁴ 1967 Price
10 25 01 13	ROP, SCREW, MACHINE STOCK	.6315			.6315
10 25 01 17	<u>EXTRUSION, SOLID CIRCLE SIZE 4 TO 5</u>				
10 25 01 13	Rod, Screw, Machine Stock	.6315			.6315
10 25 02	<u>COPPER AND BRASS MILL SHAPES</u>				.6216
31	Cartridge Brass Strip, 70-30 Alloy	.6033			.073
32	Yellow Brass Rod (62-35-3 Alloy)	.4602			.03774
33	Yellow Brass Tube (70-30 Alloy)	.7841			.03764
55	copper Sheet or Strip	.6924			.07478
					.22316
10 25 04 63	MONEY SHEET, CR 400 ALLOY			1.3752	1.3752
10 25 05	<u>TITANIUM MILL SHAPES⁵</u>				5.2926
25	Titanium Bar, Ground, GAL-AV				5.2926

A 3

NOTES: 1. Capitalized and Underlined Commodity titles indicate PPI Series actually used in the Historical Inflation Program.

2. Weight is Bureau of Labor Statistics Revised Relative Weight for the Wholesale Price Index. Source: 1975 Annual Supplement to Producer Prices and Price Indexes.

3. Product = (1967 Price Per Pound) x (Weight).

4. Weighted 1967 Price Per Pound = $\frac{\text{Product}}{\text{Weight}}$

NOVEMBER (Continued):

5. 1967 Titanium Bar Price Per Pound computed by utilizing Titanium Sponge index as surrogate for 1967 - Dec 1970. Titanium Mill Shapes index established December 1970. Titanium Sponge index for December 1970 is 95.5.

Figures may not sum due to rounding.

**COMPUTATIONS FOR THE DERIVATION OF
REVISED WEIGHTING FACTORS
FOR THE HISTORICAL ILLUMINATION PROGRAM**

PPI Code	Commodity	Contrib. to weight			Contrib. to cost			Contrib. to cost		
		Airframe	Engine	Per Pound	COSI	Per Pound	Airframe	Engine	Airframe	Engine
07	Rubber and Plastic Products	.17	.012	.2376	.04039	.00285	.0211	.0023		
10 13 02 62	Sheets, C.R., Carbon	.055		.0737	.00405		.0021			
10 13 02 64	Sheets, C.R., Stainless		.584	.5531		.32301		.2625		
10 15 01 41	Steel Castings	.22		.0497	.01093		.0057			
10 15 01 53	Closed Die Forgings		.146	.0497		.00725		.0059		
10 22 01 11	Lead, Pig, Common	.01		.14	.0014		.0007			
10 22 01 51	Magnesium, Pig Ingot	.033		.3595	.01186	.02768	.0062	.0225		
10 25 01 01	Aluminum Sheet	.256	.021	.4185	.10715	.00879	.0560	.0071		
10 25 01 13	Rod, Screw, Machine Stock	.043		.004	.6315	.02715	.00253	.0142		
10 25 01 17	Extrusion, Solid Circle Size 4 to 5	.128	.01	.6315	.08083	.00632	.0422	.0051		
10 25 02	Copper and Brass Mill Shapes	.049		.6216	.03046	.00311	.0159	.0025		
10 25 04 63	Monel Sheet, CR 400 Alloy	.011		.13752	.01513	.16777	.0079	.1364		
10 25 05	Titanium Mill Shapes	.025	.019	.52926	.13231	.10056	.0691	.0817		
		1.000		1.000		.46167	.64986	.2411	.5281	

NOTE: Revised Weighting Factors Proportional to Cost Contribution Per Pound.

Previous Weighting Factors expressed as a proportion of "composite material" index.

Revised Weighting Factors expressed as a proportion of the total index.

Previous Technical Report (TR 76-1) omitted nickel component (represented by Monel Sheet) from Engine index.

**COMPUTATIONAL
FORMULA**

$$\left[\begin{array}{c} \text{CONTRIBUTION TO WEIGHT :} \\ \text{PREVIOUS WEIGHTING FACTORS} \end{array} \right] \times \left[\begin{array}{c} 1967 \text{ COSI} \\ \text{PER LB.} \end{array} \right] \times \left[\begin{array}{c} \text{ADJUSTMENT FACTOR} \\ \text{FOR} \\ \text{(RELATIVE IMPORTANCE} \\ \text{OF MATERIAL (RAW)} \\ \text{IN OVERALL INDEX)} \end{array} \right] = \text{AIRFRAME & ENGINE} \\ \text{WEIGHTING FACTORS}$$

APPENDIX B
WHOLESALE PRICE INDEXES AND EARNINGS SERIES
USED IN
HISTORICAL INFLATION PROGRAM
WITH REVISED WEIGHTING FACTORS

PRODUCER PRICE INDEXES AND EARNINGS STATEMENT
USING HISTORICAL, INFLATION PROGRAM AND
REVISED WEIGHTING FACTORS

<u>Var</u>	<u>PPI Code</u>	<u>Commodity</u>	<u>Aerospace</u>	<u>Engines</u>	<u>Avionics</u>	<u>Remarks</u>
(1)	07	Rubber and Plastic Products	.0211	.0023		
(2)	10 13 02 62 .04	Sheets, C.R., Carbon	.0021			
(3)	10 13 02 64	Sheets, C.R., Stainless				.2625
(4)	10 15 01 41 .05	Steel Castings	.0057			
(5)	10 15 01 53 .09	Closed Die Forgings				.0059
(6)	10 22 01 11	Lead, Pig, Common				
(7)	10 22 01 51	Magnesium, Pig Ingot				
(8)	10 25 01 01 .02	Aluminum Sheet				
(9)	10 25 01 13	Rod, Screw, Machine Stock				.0225
(10)	10 25 01 17 .02	Extrusion, Solid Circle Size 4 to 5				.0071
(11)	10 25 02	Copper and Brass Mill Shapes				.0142
(12)	10 25 04 63	Monel Sheet, CR 400 Alloy **				.0021
(13)	10 25 05	Titanium Mill Shapes				.0051
(14)	11 78	Electronic Components				.0159
						.0025
						.01364
						.0079
						.0817
						.3150
	<u>SIC Code</u>	<u>Industry</u>				
(15)	3674,9 (367X)	Other Electronic Components				.6850
(16)	3721	Aircraft				.6220
(17)	3722 (3724)	Aircraft Engines and Engine Parts				.4010
(18)	3723,9 (3728)	Other Aircraft Parts and Equipment				.1369
						.0709
						1.0000
						1.0000

COMPUTATIONAL FORMULAS : Labor Cost Indexes

The data concerning cost of labor services is supplied by the Bureau of Labor Statistics, as hourly wage rates by Standard Industry Codes, and is reported on a regular basis in Employment and Earnings. Because the material indices are percentages, and wages are expressed in dollars/hour, labor cost must be converted to a percentage (index) before calculations can be made. The dollar to percentage conversions for the labor categories are made as follows:

	<u>SIC Code</u>	<u>Industry</u>	1967		
			<u>Hr. Wage</u>	<u>Current Hr. Wage</u>	<u>X 100% = INDEX</u>
(15)	3674, 9 *(367X)	Other Electronic Components		÷ 2.34	X
(16)	3721	Aircraft Production Workers	Current Hr. Wage	÷ 3.49	X
(17)	3722 *(3724)	Aircraft Engines and Engine Parts.	Current Hr. Wage	÷ 3.42	X
(18)	3723, 9 *(3728)	Other Aircraft Parts and Equipment.	Current Hr. Wage	÷ 3.35	X

REDUCED FORM EQUATION

$$\begin{aligned} \text{Airframe} &= .0211 (\text{V-1}) + .0021 (\text{V-2}) + .0057 (\text{V-4}) + .0007 (\text{V-6}) \\ &+ .0062 (\text{V-7}) + .056 (\text{V-8}) + .0142 (\text{V-9}) + .0422 (\text{V-10}) \\ &+ .0159 (\text{V-11}) + .0079 (\text{V-12}) + .0660 (\text{V-13}) + .622 (\text{V-16}) (100/3.49) \\ &+ .1369 (\text{V-18}) (100/3.35) \\ \underline{\text{Engine}} &= .0023 (\text{V-1}) + .2625 (\text{V-3}) + .0059 (\text{V-5}) + .0225 (\text{V-7}) \\ &+ .0071 (\text{V-8}) + .0021 (\text{V-9}) + .0051 (\text{V-10}) + .0025 (\text{V-11}) \\ &+ .1364 (\text{V-12}) + .0817 (\text{V-13}) + .401 (\text{V-17}) (100/3.42) \\ &+ .0709 (\text{V-18}) (100/3.35) \\ \underline{\text{Avionics}} &= .3150 (\text{V-14}) + .6850 (\text{V-15}) (100/2.34) \end{aligned}$$

Variables (V-1) thru (V-18)
are defined on page B-2

DATA/DEVELOPMENT

- (1) Calendar Year Data - As given on printout.
- (2) Monthly Data - As specified on printout.
- (3) Quarterly Data - Development from Monthly.

$$\text{Quarterly} = [(\text{Month T-1}) + (\text{Month T}) + (\text{Month T+1})] / 3$$

- (4) Fiscal Year Data - Developed using appropriate quarterly data.

$$\text{Fiscal Year Average} = \frac{Q_1 + Q_2 + Q_3 + Q_4}{4}$$

(Quarters of Fiscal Year)

Variables specified on preceding chart.

APPENDIX C

HISTORICAL FLOW OF WHOLESALE PRICE INDEXES AND
EARNINGS SERIES USED IN HISTORICAL INFLATION
PROGRAM WITH REVISED WEIGHTING FACTORS

C 1

**Historical Flow of Producer Price Index's
and Earnings Series used in Historical
Inflation Program**

Index		Calendar Year										PPI Code	
		47	48	49	50	51	52	53	54	55	56	57	
Rubber and Plastic Products													07
Metals and Metal Products													10
Steel Sheets													10 13 62
Stainless Steel Sheets													10 13 02 64
Steel Castings													10 15 01 41
Alloy Steel Forgings													10 15 01 53
Lead													10 22 01 11
Magnesium Ingot													10 22 01 51
Titanium Sponge													10 22 01 56
Aluminum Shapes													10 25 01
Aluminum Sheet													10 25 01 01
Aluminum Rod													10 25 01 13
Aluminum Extrusion													10 25 01 17
Copper and Brass Mill Shapes													10 25 02
Monoel Sheet													10 25 04 63
Titanium Mill Sheets													10 25 05
Machinery and Equipment													21
Electrical Machinery and Equipment													11 7
Electronic Components													11 7 6

Industry		Calendar Year										SIC Code	
		47	48	49	50	51	52	53	54	55	56	57	
Electronic Components													3674,9 (367X)
Aircraft and Parts													372
Aircraft													3721
Aircraft Engines													3722 (3724)
Other Aircraft													3723,9 (3726)

APPENDIX D

ANNUAL DATA FOR THE HISTORICAL INFLATION PROGRAM FOR U. S.
ARMY ROTARY WING AIRCRAFT

D 1

APPENDIX E

MONTHLY DATA FOR THE HISTORICAL INFLATION PROGRAM :

CONTINUATION OF
MATERIALS

LITERATURE

MONITORIAL FORMS MATERIALS

LITERATURE

**MONTHLY DATION FOR
MATERIALS ONLY**

ACKNOWLEDGEMENTS

APPENDIX F

HISTORICAL INFLATION INDICES :

F1

HISTORICAL INSTALLATION
PRT-195A INDUITS

AIRCRAFT	Project ID#	Initial	Production	
INDEX	FACTOR	INDEX	FACTOR	
CY	FY79=	CY67=	FY79=	
47	47.3	4.0694	55.2	4.2859
48	52.1	4.4217	61.0	3.8290
49	55.4	4.2014	63.1	3.7481
50	56.8	4.0531	66.4	3.5636
51	62.4	3.4631	73.3	3.2260
52	64.7	3.4537	74.9	3.1585
53	67.5	3.0195	77.8	3.0390
54	69.4	3.3176	79.3	2.9814
55	73.1	3.1492	84.0	2.8151
56	77.6	2.9678	90.2	2.6221
57	79.9	2.8835	92.5	2.5572

INDEX	FACTOR	INDEX	FACTOR	
CY	FY79=	CY67=	FY79=	
49	49.1	4.7199	54.2	4.2717
55.9	55.9	4.4475	58.9	3.9342
64.9	64.9	3.5720	67.0	3.4600
69.8	69.8	3.3213	71.6	3.2349
75.6	75.6	3.0666	80.4	2.8816
82.7	82.7	2.8024		

F 2

HISTORICAL INDIVIDUAL
CALENDAR YEAR INDICES

AIRCRAFT PRODUCTION	FAIRCHILD PRODUCTION	AVIONICS PRODUCTION	AGGREGATE AIR VEHICLE EXCLUDING AVIONICS		AGGREGATE AIR VEHICLE INCLUDING AVIONICS	
			INDEX CY 67= 100.0	FACTOR FY79= 1.0000	INDEX CY 67= 100.0	FACTOR FY79= 1.0000
56	62.4	2.7950	94.2	2.5115	81.5	2.7243
59	83.3	2.7554	92.6	2.5531	83.2	2.3582
60	65.3	2.7006	95.5	2.4759	85.4	2.2773
61	66.0	2.6730	92.6	2.4726	87.6	2.2239
62	87.1	2.6430	95.9	2.4670	87.4	2.2239
63	88.0	2.6160	94.4	2.5052	89.0	2.1651
64	89.2	2.5422	92.3	2.5619	91.1	2.1335
65	92.3	2.4416	92.7	2.5507	92.6	2.0997
66	96.5	2.3973	95.5	2.4766	95.5	2.0367
67	100.0	2.3031	100.0	2.3650	100.0	1.9494
68	103.6	2.2187	104.6	2.2610	104.1	1.8671
69	110.4	2.0665	111.1	2.1279	108.1	1.7983
70	116.9	1.9703	121.6	1.9415	113.2	1.7177
71	120.9	1.9058	127.6	1.8537	117.4	1.6556
72	128.9	1.7965	130.7	1.8090	121.0	1.6073
73	137.7	1.6720	135.3	1.7485	125.4	1.5507
74	154.0	1.4957	157.2	1.5047	134.3	1.4475
75	172.0	1.3390	178.1	1.3277	146.2	1.3303
76	184.6	1.2477	189.7	1.2470	152.7	1.2734
77	197.8	1.1641	207.6	1.1391	164.4	1.1826
78	214.7	1.0725	219.3	1.0782	187.4	1.0601
					215.8	1.0738
						212.5

HISTORICAL INITIATION
MOBILITY INDICES

AIRCRAFT PRODUCTION	INITIAL PRODUCTION	AVIONICS PRODUCTION		AGGREGATE AIR VEHICLE INCLUDING AVIONICS		AGGREGATE AIR VEHICLE EXCLUDING AVIONICS		AGGREGATE AIR VEHICLE INCLUDING AVIONICS,	
		INDEX CY67=100.0	FACTOR FY77=1.0000	INDEX CY67=100.0	FACTOR FY77=1.0000	INDEX CY67=100.0	FACTOR FY77=1.0000	INDEX CY67=100.0	FACTOR FY77=1.0000
JUL 67 60 99.3	FY 101.1	100.0	1.0000	100.0	1.0000	100.0	1.0000	100.0	1.0000
AUG 67 60 100.3	2.3139	99.4	2.3783	100.5	1.9343	99.3	2.3326	99.4	2.2924
SEP 67 59 100.7	2.2952	100.0	2.3655	100.2	1.9406	100.3	2.3008	100.3	2.2738
OCT 67 58 101.1	2.2772	102.1	2.3159	100.7	1.9311	101.4	2.3031	100.6	2.2671
NOV 67 53 102.1	2.2567	102.3	2.3125	100.3	1.9273	102.1	2.2691	101.3	2.2506
DEC 67 57 102.8	2.2405	103.2	2.2320	102.0	1.9059	102.9	2.2520	102.0	2.2353
JAN 68 61 102.5	2.2473	103.5	2.2855	102.5	1.8962	102.7	2.2558	102.7	2.2177
FEB 68 63 102.5	2.2462	103.9	2.2765	103.3	1.8819	102.6	2.2530	102.9	2.2199
MAR 68 58 102.6	2.2450	103.8	2.2786	103.2	1.8636	102.9	2.2525	102.9	2.2155
APR 68 60 101.9	2.2539	103.0	2.2969	102.7	1.8926	102.1	2.2682	102.2	2.2304
MAY 68 63 102.4	2.2497	104.1	2.2725	103.6	1.8760	102.6	2.2519	102.8	2.2167
JUN 68 68 102.8	2.2439	104.4	2.2946	104.1	1.8677	103.1	2.2462	103.2	2.2081
JUL 68 69 102.8	2.2498	104.5	2.2639	104.1	1.8669	103.2	2.2460	103.2	2.2079
AUG 68 69 103.9	2.2177	105.2	2.2487	104.7	1.8578	104.1	2.2247	104.2	2.1878
SEP 68 69 104.8	2.1995	105.3	2.2459	105.0	1.9526	104.9	2.1734	104.9	2.1734
OCT 68 69 106.6	2.1507	105.6	2.1504	105.2	1.8475	106.4	2.1763	106.3	2.1455
NOV 68 69 107.0	2.1532	105.8	2.2343	105.9	1.8367	106.7	2.1710	106.6	2.1379
DEC 68 69 107.3	2.1457	107.1	2.2079	106.2	1.8316	107.3	2.1595	107.2	2.1271
JAN 69 69 107.5	2.1451	108.1	2.1682	106.1	1.8327	107.6	2.1532	107.5	2.1215
FEB 69 69 108.9	2.1143	108.2	2.1361	107.4	1.8107	108.6	2.1302	108.6	2.0986
MAR 69 69 108.9	2.1149	108.1	2.1878	107.2	1.8146	108.7	2.1310	108.6	2.0990
APR 69 69 109.4	2.1093	108.4	2.1807	106.9	1.6185	109.1	2.1243	108.9	2.0943
MAY 69 69 109.2	2.1042	109.0	2.1698	107.8	1.8037	109.2	2.1218	109.1	2.0904
JUN 69 69 109.4	2.1054	110.3	2.1447	108.1	1.7980	109.6	2.1148	109.4	2.0836
JUL 69 70 109.5	2.0763	110.6	2.1391	108.4	1.7945	109.6	2.1140	109.5	2.0824
SEP 69 70 111.1	2.0729	110.8	2.1338	108.7	1.7891	111.0	2.0864	110.8	2.0572
OCT 69 70 110.4	2.0863	110.9	2.1526	109.5	1.7765	110.5	2.0967	110.4	2.0649
JAN 70 70 112.3	2.0500	115.5	2.0475	105.2	1.7802	113.0	2.0501	112.6	2.0239
NOV 70 70 113.0	2.0296	115.4	2.0503	109.6	1.7739	114.1	2.0303	113.7	2.0056
DEC 70 70 114.6	2.0059	113.4	2.0307	116.4	1.7613	115.7	2.0031	115.1	1.9799
JAN 70 70 114.9	2.0037	120.0	1.5649	111.0	1.7520	116.2	1.9947	115.6	1.9714
FEB 70 70 115.0	2.0020	120.4	1.9645	110.4	1.7534	116.2	1.9941	115.7	1.9710
MAR 70 70 115.1	2.0017	120.7	1.9598	111.5	1.7492	116.3	1.9220	115.8	1.9682
APR 70 70 115.4	1.9766	120.7	1.9501	111.9	1.7377	116.6	1.9079	116.1	1.9638
MAY 70 70 115.7	1.9523	121.1	1.9257	112.5	1.7280	116.9	1.9017	116.5	1.9572
JUN 70 70 115.9	1.9474	121.5	1.9060	113.4	1.7124	117.1	1.9782	116.8	1.9523
JUL 70 71 116.1	1.9407	121.8	1.9016	114.1	1.7036	117.4	1.9740	117.0	1.9476
SEP 70 71 119.0	1.9257	122.2	1.9353	114.4	1.7002	116.9	1.9084	116.5	1.9245
OCT 70 71 119.4	1.9202	120.7	1.9501	111.9	1.7339	117.7	1.9366	119.2	1.9132
JAN 71 71 119.6	1.9233	122.9	1.9257	115.1	1.6935	119.3	1.9333	119.4	1.9097
FEB 71 71 119.6	1.9251	122.7	1.9257	115.2	1.6932	119.3	1.9333	119.4	1.9097
MAR 71 71 119.7	1.9257	122.7	1.9257	115.3	1.6930	120.0	1.9333	120.5	1.8862
APR 71 71 120.0	1.9177	123.6	1.9153	117.7	1.6780	121.3	1.9097	120.9	1.8702
MAY 71 71 121.2	1.9177	124.9	1.9335	116.7	1.6662	121.3	1.9097	121.9	1.8666
JUN 71 71 121.7	1.9177	124.7	1.9353	117.4	1.6550	121.0	1.9153	120.6	1.8903
SEP 71 71 121.7	1.9177	124.7	1.9321	117.1	1.6517	120.8	1.9176	120.5	1.8926
OCT 71 71 121.9	1.9177	124.7	1.9321	117.6	1.6540	121.1	1.9151	120.7	1.8880
JAN 71 71 122.3	1.9177	125.6	1.9321	117.6	1.6550	121.5	1.9152	121.3	1.8852
FEB 71 71 126.7	1.9177	125.6	1.9321	117.7	1.6550	121.5	1.9152	121.9	1.8666

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JUN	71	105.7	1.24305	109.5	1.2470	102.6	1.2745	106.5	1.2421	103.1	1.2446
JUN	71	105.6	1.2407	107.5	1.2300	105.2	1.2693	107.1	1.2382	103.7	1.2406
JUN	71	106.9	1.2424	104.0	1.2169	103.4	1.2637	108.5	1.2293	105.0	1.2322
JUN	71	104.2	1.2171	104.7	1.2149	104.9	1.2655	100.4	1.2169	106.8	1.2201
JUN	71	109.7	1.2139	105.3	1.2108	105.5	1.2503	191.0	1.2132	107.4	1.2163
JUN	71	100.6	1.2035	106.7	1.2022	108.5	1.2267	191.9	1.2070	108.6	1.2067
JUN	71	191.6	1.2019	108.6	1.1910	100.4	1.2124	193.2	1.1994	189.9	1.2005
JUN	71	192.3	1.1975	104.2	1.1349	109.9	1.2161	194.0	1.1962	190.6	1.1961
JUN	71	193.9	1.1307	202.7	1.1666	160.2	1.2139	195.5	1.1651	192.0	1.1675
JUN	71	135.3	1.1792	202.7	1.1567	161.0	1.2060	137.0	1.1764	193.4	1.1790
MAY	71	126.7	1.1709	206.4	1.1460	162.1	1.1933	198.8	1.1652	195.2	1.1680
JUN	71	197.4	1.1664	208.5	1.1344	163.9	1.1862	199.9	1.1593	196.3	1.1615
JUL	71	198.9	1.1577	210.2	1.1254	164.7	1.1804	201.4	1.1502	197.8	1.1527
AUG	71	200.2	1.1593	210.3	1.1244	165.6	1.1759	202.5	1.1494	136.8	1.1468
SEP	71	201.2	1.1465	211.3	1.1194	167.9	1.1579	203.5	1.1367	199.9	1.1403
OCT	71	200.7	1.1475	212.7	1.1120	172.2	1.1290	203.4	1.1392	200.3	1.1384
NOV	71	202.7	1.1363	213.0	1.1044	173.5	1.1221	205.0	1.1304	201.8	1.1297
DEC	71	203.5	1.1513	215.3	1.0985	175.6	1.1075	206.1	1.1291	203.1	1.1227
JAN	71	205.3	1.1217	215.0	1.1105	178.2	1.0909	207.0	1.1191	204.1	1.1167
FEB	71	207.4	1.1103	215.8	1.0961	176.9	1.0868	209.3	1.1070	206.3	1.1052
MAR	71	208.4	1.0952	214.2	1.1041	179.6	1.0829	209.7	1.1050	206.7	1.1031
APR	71	210.0	1.0363	214.1	1.1047	179.7	1.0821	210.9	1.0986	207.8	1.0971
MAY	71	210.6	1.0337	215.2	1.0986	180.2	1.0790	211.6	1.0948	208.5	1.0934
JUN	71	211.4	1.0495	217.6	1.0867	181.6	1.0706	212.8	1.0889	209.7	1.0873
JUL	71	213.4	1.0793	220.0	1.0749	183.8	1.0561	214.9	1.0783	211.8	1.0765
AUG	71	216.5	1.0646	221.7	1.0668	184.0	1.0566	217.5	1.0651	214.2	1.0644
SEP	71	217.5	1.0601	223.1	1.0600	186.4	1.0429	218.6	1.0600	215.4	1.0586
OCT	71	220.0	1.0620	223.4	1.0584	186.8	1.0407	221.6	1.0457	218.1	1.0453
NOV	71	223.0	1.0108	225.3	1.0592	187.9	1.0348	223.4	1.0371	219.9	1.0369
DEC	71	225.0	1.0377	228.4	1.0353	191.1	1.0174	225.7	1.0263	222.3	1.0256
JAN	71	227.5	1.0124	229.4	1.0356	191.5	1.0151	227.7	1.0176	224.1	1.0174
FEB	71	227.8	1.0112	229.7	1.0298	192.7	1.0092	228.2	1.0154	224.6	1.0149
MAR	71	228.5	1.0041	231.4	1.0220	193.1	1.0068	229.1	1.0113	225.5	1.0109
APR	71	229.6	1.0933	233.7	1.0121	193.1	1.0067	230.5	1.0052	226.8	1.0053
MAY	71	233.1	0.9331	241.1	0.9307	194.7	0.9985	234.9	0.9864	230.9	0.9874
JUN	71	233.9	0.9846	245.0	0.9652	197.2	0.9859	236.4	0.9802	232.5	0.9807
JUL	71	236.3	0.9745	249.1	0.9493	199.1	0.9766	239.2	0.9687	235.2	0.9694
AUG	71	237.4	0.9703	251.3	0.9411	201.4	0.9655	240.5	0.9635	236.6	0.9637
SEP	71	240.3	0.9343	253.1	0.9344	204.5	0.9509	243.2	0.9527	239.3	0.9526

HISTOLOGY AND PATHOLOGY

AIRCRAFT ID	MANUFACTURER	TYPE	SERIAL NUMBER	PROJECT 1100			AVIATION PRODUCTION			EXCLUDING AVIONICS			INCLUDING AVIONICS		
				FACTOR X	FACTOR Y	FACTOR Z	FACTOR X	FACTOR Y	FACTOR Z	FACTOR X	FACTOR Y	FACTOR Z	FACTOR X	FACTOR Y	FACTOR Z
100-000	Boeing	737-800	100000	1.0000	1.0000	1.0000	2.3666	1.9389	1.0000	2.3154	1.0000	1.0000	2.2777	FY79=	1.0000
100-001	Boeing	737-800	100001	1.0000	1.0000	1.0000	2.3067	1.9214	1.0000	2.2689	1.0000	1.0000	2.2344	FY79=	1.0000
100-002	Boeing	737-800	100002	1.0000	1.0000	1.0000	2.2492	1.9072	1.0000	2.2534	1.0000	1.0000	2.2170	FY79=	1.0000
100-003	Boeing	737-800	100003	1.0000	1.0000	1.0000	2.2179	1.8977	1.0000	2.2564	1.0000	1.0000	2.2163	FY79=	1.0000
100-004	Boeing	737-800	100004	1.0000	1.0000	1.0000	2.1649	1.8806	1.0000	2.2265	1.0000	1.0000	2.1896	FY79=	1.0000
100-005	Boeing	737-800	100005	1.0000	1.0000	1.0000	2.1492	1.8654	1.0000	2.1696	1.0000	1.0000	2.1368	FY79=	1.0000
100-006	Boeing	737-800	100006	1.0000	1.0000	1.0000	2.1249	1.8513	1.0000	2.1301	1.0000	1.0000	2.1066	FY79=	1.0000
100-007	Boeing	737-800	100007	1.0000	1.0000	1.0000	2.1075	1.8370	1.0000	2.1203	1.0000	1.0000	2.0894	FY79=	1.0000
100-008	Boeing	737-800	100008	1.0000	1.0000	1.0000	2.0975	1.8227	1.0000	2.0990	1.0000	1.0000	2.0681	FY79=	1.0000
100-009	Boeing	737-800	100009	1.0000	1.0000	1.0000	2.0849	1.8084	1.0000	2.0976	1.0000	1.0000	2.0300	FY79=	1.0000
100-010	Boeing	737-800	100010	1.0000	1.0000	1.0000	2.0756	1.7949	1.0000	2.0936	1.0000	1.0000	2.0702	FY79=	1.0000
100-011	Boeing	737-800	100011	1.0000	1.0000	1.0000	2.0651	1.7811	1.0000	2.0826	1.0000	1.0000	2.0577	FY79=	1.0000
100-012	Boeing	737-800	100012	1.0000	1.0000	1.0000	2.0550	1.7675	1.0000	2.0759	1.0000	1.0000	2.0263	FY79=	1.0000
100-013	Boeing	737-800	100013	1.0000	1.0000	1.0000	2.0450	1.7536	1.0000	2.0691	1.0000	1.0000	2.0058	FY79=	1.0000
100-014	Boeing	737-800	100014	1.0000	1.0000	1.0000	2.0350	1.7396	1.0000	2.0559	1.0000	1.0000	1.9858	FY79=	1.0000
100-015	Boeing	737-800	100015	1.0000	1.0000	1.0000	2.0250	1.7256	1.0000	2.0484	1.0000	1.0000	1.9695	FY79=	1.0000
100-016	Boeing	737-800	100016	1.0000	1.0000	1.0000	2.0150	1.7116	1.0000	2.0342	1.0000	1.0000	1.9514	FY79=	1.0000
100-017	Boeing	737-800	100017	1.0000	1.0000	1.0000	2.0050	1.6976	1.0000	2.0276	1.0000	1.0000	1.9353	FY79=	1.0000
100-018	Boeing	737-800	100018	1.0000	1.0000	1.0000	1.9950	1.6836	1.0000	2.0135	1.0000	1.0000	1.9154	FY79=	1.0000
100-019	Boeing	737-800	100019	1.0000	1.0000	1.0000	1.9850	1.6696	1.0000	2.0000	1.0000	1.0000	1.8974	FY79=	1.0000
100-020	Boeing	737-800	100020	1.0000	1.0000	1.0000	1.9750	1.6556	1.0000	1.9863	1.0000	1.0000	1.8633	FY79=	1.0000
100-021	Boeing	737-800	100021	1.0000	1.0000	1.0000	1.9650	1.6416	1.0000	1.9651	1.0000	1.0000	1.8451	FY79=	1.0000
100-022	Boeing	737-800	100022	1.0000	1.0000	1.0000	1.9550	1.6276	1.0000	1.9546	1.0000	1.0000	1.8246	FY79=	1.0000
100-023	Boeing	737-800	100023	1.0000	1.0000	1.0000	1.9450	1.6136	1.0000	1.9284	1.0000	1.0000	1.8046	FY79=	1.0000
100-024	Boeing	737-800	100024	1.0000	1.0000	1.0000	1.9350	1.5996	1.0000	1.9136	1.0000	1.0000	1.7772	FY79=	1.0000
100-025	Boeing	737-800	100025	1.0000	1.0000	1.0000	1.9250	1.5856	1.0000	1.8989	1.0000	1.0000	1.7786	FY79=	1.0000
100-026	Boeing	737-800	100026	1.0000	1.0000	1.0000	1.9150	1.5716	1.0000	1.8848	1.0000	1.0000	1.7540	FY79=	1.0000
100-027	Boeing	737-800	100027	1.0000	1.0000	1.0000	1.9050	1.5576	1.0000	1.8787	1.0000	1.0000	1.7149	FY79=	1.0000
100-028	Boeing	737-800	100028	1.0000	1.0000	1.0000	1.8950	1.5436	1.0000	1.8709	1.0000	1.0000	1.6957	FY79=	1.0000
100-029	Boeing	737-800	100029	1.0000	1.0000	1.0000	1.8850	1.5296	1.0000	1.8631	1.0000	1.0000	1.6792	FY79=	1.0000
100-030	Boeing	737-800	100030	1.0000	1.0000	1.0000	1.8750	1.5156	1.0000	1.8472	1.0000	1.0000	1.6681	FY79=	1.0000
100-031	Boeing	737-800	100031	1.0000	1.0000	1.0000	1.8650	1.4916	1.0000	1.8293	1.0000	1.0000	1.6481	FY79=	1.0000
100-032	Boeing	737-800	100032	1.0000	1.0000	1.0000	1.8550	1.4776	1.0000	1.8053	1.0000	1.0000	1.6280	FY79=	1.0000
100-033	Boeing	737-800	100033	1.0000	1.0000	1.0000	1.8450	1.4636	1.0000	1.7875	1.0000	1.0000	1.6080	FY79=	1.0000
100-034	Boeing	737-800	100034	1.0000	1.0000	1.0000	1.8350	1.4496	1.0000	1.7714	1.0000	1.0000	1.5839	FY79=	1.0000
100-035	Boeing	737-800	100035	1.0000	1.0000	1.0000	1.8250	1.4356	1.0000	1.7553	1.0000	1.0000	1.5656	FY79=	1.0000
100-036	Boeing	737-800	100036	1.0000	1.0000	1.0000	1.8150	1.4216	1.0000	1.7444	1.0000	1.0000	1.5459	FY79=	1.0000
100-037	Boeing	737-800	100037	1.0000	1.0000	1.0000	1.8050	1.4076	1.0000	1.7344	1.0000	1.0000	1.5252	FY79=	1.0000
100-038	Boeing	737-800	100038	1.0000	1.0000	1.0000	1.7950	1.3936	1.0000	1.7244	1.0000	1.0000	1.5050	FY79=	1.0000
100-039	Boeing	737-800	100039	1.0000	1.0000	1.0000	1.7850	1.3796	1.0000	1.7143	1.0000	1.0000	1.4853	FY79=	1.0000
100-040	Boeing	737-800	100040	1.0000	1.0000	1.0000	1.7750	1.3656	1.0000	1.7042	1.0000	1.0000	1.4661	FY79=	1.0000
100-041	Boeing	737-800	100041	1.0000	1.0000	1.0000	1.7650	1.3516	1.0000	1.6941	1.0000	1.0000	1.4460	FY79=	1.0000
100-042	Boeing	737-800	100042	1.0000	1.0000	1.0000	1.7550	1.3376	1.0000	1.6840	1.0000	1.0000	1.4267	FY79=	1.0000
100-043	Boeing	737-800	100043	1.0000	1.0000	1.0000	1.7450	1.3236	1.0000	1.6739	1.0000	1.0000	1.4064	FY79=	1.0000
100-044	Boeing	737-800	100044	1.0000	1.0000	1.0000	1.7350	1.3096	1.0000	1.6638	1.0000	1.0000	1.3862	FY79=	1.0000
100-045	Boeing	737-800	100045	1.0000	1.0000	1.0000	1.7250	1.2956	1.0000	1.6537	1.0000	1.0000	1.3669	FY79=	1.0000
100-046	Boeing	737-800	100046	1.0000	1.0000	1.0000	1.7150	1.2816	1.0000	1.6436	1.0000	1.0000	1.3476	FY79=	1.0000
100-047	Boeing	737-800	100047	1.0000	1.0000	1.0000	1.7050	1.2676	1.0000	1.6331	1.0000	1.0000	1.3272	FY79=	1.0000
100-048	Boeing	737-800	100048	1.0000	1.0000	1.0000	1.6950	1.2536	1.0000	1.6228	1.0000	1.0000	1.3082	FY79=	1.0000
100-049	Boeing	737-800	100049	1.0000	1.0000	1.0000	1.6850	1.2396	1.0000	1.6127	1.0000	1.0000	1.2915	FY79=	1.0000
100-050	Boeing	737-800	100050	1.0000	1.0000	1.0000	1.6750	1.2256	1.0000	1.6026	1.0000	1.0000	1.2714	FY79=	1.0000
100-051	Boeing	737-800	100051	1.0000	1.0000	1.0000	1.6650	1.2116	1.0000	1.5925	1.0000	1.0000	1.2513	FY79=	1.0000
100-052	Boeing	737-800	100052	1.0000	1.0000	1.0000	1.6550	1.1976	1.0000	1.5824	1.0000	1.0000	1.2310	FY79=	1.0000
100-053	Boeing	737-800	100053	1.0000	1.0000	1.0000	1.6450	1.1836	1.0000	1.5723	1.0000	1.0000	1.2108	FY79=	1.0000
100-054	Boeing	737-800	100054	1.0000	1.0000	1.0000	1.6350	1.1696	1.0000	1.5622	1.0000	1.0000	1.1907	FY79=	1.0000
100-055	Boeing	737-800	100055	1.0000	1.0000	1.0000	1.6250	1.1556	1.0000	1.5521	1.0000	1.0000	1.1706	FY79=	1.0000
100-056	Boeing	737-800	100056	1.0000	1.0000	1.0000	1.6150	1.1416	1.0000	1.5420	1.0000	1.0000	1.1505	FY79=	1.0000
100-057	Boeing	737-800	100057	1.0000	1.0000	1.0000	1.6050	1.1276	1.0000	1.5319	1.0000	1.0000	1.1302	FY79=	1.0000
100-058	Boeing	737-800	100058	1.0000	1.0000	1.0000	1.5950	1.1136	1.0000	1.5218	1.0000	1.0000	1.1093	FY79=	1.0000
100-059	Boeing	737-800	100059	1.0000	1.0000	1.0000	1.5850	1.0996	1.0000	1.5117	1.0000	1.0000	1.0893	FY79=	1.0000
100-060	Boeing	737-800	100060	1.0000	1.0000	1.0000	1.5750	1.0856	1.0000	1.5016	1.0000	1.0000	1.0784	FY79=	1.0000
100-061	Boeing	737-800	100061	1.0000	1.0000	1.0000	1.5650	1.0716	1.0000	1.4915	1.0000	1.0000	1.0664	FY79=	1.0000
100-062	Boeing	737-800	100062	1.0000	1.0000	1.0000	1.5550	1.0576	1.0000	1.4814	1.0000	1.0000	1.0563	FY79=	1.0000
100-063	Boeing	737-800	100063	1.0000	1.0000	1.0000	1.5450	1.0436	1.0000	1.4713	1.0000	1.0000	1.0414	FY79=	1.0000
100-064	Boeing	737-800	100064	1.0000	1.0000	1.0000	1.5350	1.0296	1.0000	1.4612	1.0000	1.0000	1.0312	FY79=	1.0000
100-065	Boeing	737-800	100065	1.0000	1.0000	1.0000	1.5250	1.0156	1.0000	1.4511	1.0000	1.0000	1.0217	FY79=	

HISTORICAL INFLATION
FISCAL YEAR INDICES

INDEX	FAIR VALUE	FAIR VALUE PRODUCTION	FAIR VALUE PRODUCTION	AVIONICS PRODUCTION		AGGREGATE AIR VEHICLE EXCLUDING AVIONICS		AGGREGATE AIR VEHICLE INCLUDING AVIONICS	
				FACTOR	INDEX	FACTOR	INDEX	FACTOR	INDEX
1.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.1	1.095	1.095	1.095	1.095	1.095	1.095	1.095	1.095	1.095
1.2	1.194	1.194	1.194	1.194	1.194	1.194	1.194	1.194	1.194
1.3	1.332	1.332	1.332	1.332	1.332	1.332	1.332	1.332	1.332
1.4	1.494	1.494	1.494	1.494	1.494	1.494	1.494	1.494	1.494
1.5	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664
1.6	1.844	1.844	1.844	1.844	1.844	1.844	1.844	1.844	1.844
1.7	2.034	2.034	2.034	2.034	2.034	2.034	2.034	2.034	2.034
1.8	2.234	2.234	2.234	2.234	2.234	2.234	2.234	2.234	2.234
1.9	2.442	2.442	2.442	2.442	2.442	2.442	2.442	2.442	2.442
2.0	2.664	2.664	2.664	2.664	2.664	2.664	2.664	2.664	2.664
2.1	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900
2.2	3.144	3.144	3.144	3.144	3.144	3.144	3.144	3.144	3.144
2.3	3.394	3.394	3.394	3.394	3.394	3.394	3.394	3.394	3.394
2.4	3.650	3.650	3.650	3.650	3.650	3.650	3.650	3.650	3.650
2.5	3.914	3.914	3.914	3.914	3.914	3.914	3.914	3.914	3.914
2.6	4.184	4.184	4.184	4.184	4.184	4.184	4.184	4.184	4.184
2.7	4.460	4.460	4.460	4.460	4.460	4.460	4.460	4.460	4.460
2.8	4.744	4.744	4.744	4.744	4.744	4.744	4.744	4.744	4.744
2.9	5.034	5.034	5.034	5.034	5.034	5.034	5.034	5.034	5.034
3.0	5.330	5.330	5.330	5.330	5.330	5.330	5.330	5.330	5.330
3.1	5.634	5.634	5.634	5.634	5.634	5.634	5.634	5.634	5.634
3.2	6.944	6.944	6.944	6.944	6.944	6.944	6.944	6.944	6.944
3.3	7.264	7.264	7.264	7.264	7.264	7.264	7.264	7.264	7.264
3.4	7.590	7.590	7.590	7.590	7.590	7.590	7.590	7.590	7.590
3.5	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924	7.924
3.6	8.264	8.264	8.264	8.264	8.264	8.264	8.264	8.264	8.264
3.7	8.610	8.610	8.610	8.610	8.610	8.610	8.610	8.610	8.610
3.8	8.964	8.964	8.964	8.964	8.964	8.964	8.964	8.964	8.964
3.9	9.324	9.324	9.324	9.324	9.324	9.324	9.324	9.324	9.324
4.0	9.690	9.690	9.690	9.690	9.690	9.690	9.690	9.690	9.690
4.1	10.064	10.064	10.064	10.064	10.064	10.064	10.064	10.064	10.064
4.2	10.444	10.444	10.444	10.444	10.444	10.444	10.444	10.444	10.444
4.3	10.830	10.830	10.830	10.830	10.830	10.830	10.830	10.830	10.830
4.4	11.224	11.224	11.224	11.224	11.224	11.224	11.224	11.224	11.224
4.5	11.624	11.624	11.624	11.624	11.624	11.624	11.624	11.624	11.624
4.6	12.030	12.030	12.030	12.030	12.030	12.030	12.030	12.030	12.030
4.7	12.444	12.444	12.444	12.444	12.444	12.444	12.444	12.444	12.444
4.8	12.864	12.864	12.864	12.864	12.864	12.864	12.864	12.864	12.864
4.9	13.290	13.290	13.290	13.290	13.290	13.290	13.290	13.290	13.290
5.0	13.724	13.724	13.724	13.724	13.724	13.724	13.724	13.724	13.724
5.1	14.164	14.164	14.164	14.164	14.164	14.164	14.164	14.164	14.164
5.2	14.610	14.610	14.610	14.610	14.610	14.610	14.610	14.610	14.610
5.3	15.064	15.064	15.064	15.064	15.064	15.064	15.064	15.064	15.064
5.4	15.524	15.524	15.524	15.524	15.524	15.524	15.524	15.524	15.524
5.5	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000	16.000
5.6	16.484	16.484	16.484	16.484	16.484	16.484	16.484	16.484	16.484
5.7	16.974	16.974	16.974	16.974	16.974	16.974	16.974	16.974	16.974
5.8	17.470	17.470	17.470	17.470	17.470	17.470	17.470	17.470	17.470
5.9	17.974	17.974	17.974	17.974	17.974	17.974	17.974	17.974	17.974
6.0	18.484	18.484	18.484	18.484	18.484	18.484	18.484	18.484	18.484
6.1	18.990	18.990	18.990	18.990	18.990	18.990	18.990	18.990	18.990
6.2	19.504	19.504	19.504	19.504	19.504	19.504	19.504	19.504	19.504
6.3	20.024	20.024	20.024	20.024	20.024	20.024	20.024	20.024	20.024
6.4	20.550	20.550	20.550	20.550	20.550	20.550	20.550	20.550	20.550
6.5	21.084	21.084	21.084	21.084	21.084	21.084	21.084	21.084	21.084
6.6	21.624	21.624	21.624	21.624	21.624	21.624	21.624	21.624	21.624
6.7	22.170	22.170	22.170	22.170	22.170	22.170	22.170	22.170	22.170
6.8	22.724	22.724	22.724	22.724	22.724	22.724	22.724	22.724	22.724
6.9	23.280	23.280	23.280	23.280	23.280	23.280	23.280	23.280	23.280
7.0	23.844	23.844	23.844	23.844	23.844	23.844	23.844	23.844	23.844
7.1	24.410	24.410	24.410	24.410	24.410	24.410	24.410	24.410	24.410
7.2	25.084	25.084	25.084	25.084	25.084	25.084	25.084	25.084	25.084
7.3	25.760	25.760	25.760	25.760	25.760	25.760	25.760	25.760	25.760
7.4	26.444	26.444	26.444	26.444	26.444	26.444	26.444	26.444	26.444
7.5	27.130	27.130	27.130	27.130	27.130	27.130	27.130	27.130	27.130
7.6	27.824	27.824	27.824	27.824	27.824	27.824	27.824	27.824	27.824
7.7	28.520	28.520	28.520	28.520	28.520	28.520	28.520	28.520	28.520
7.8	29.224	29.224	29.224	29.224	29.224	29.224	29.224	29.224	29.224
7.9	29.930	29.930	29.930	29.930	29.930	29.930	29.930	29.930	29.930
8.0	30.644	30.644	30.644	30.644	30.644	30.644	30.644	30.644	30.644
8.1	31.360	31.360	31.360	31.360	31.360	31.360	31.360	31.360	31.360
8.2	32.084	32.084	32.084	32.084	32.084	32.084	32.084	32.084	32.084
8.3	32.810	32.810	32.810	32.810	32.810	32.810	32.810	32.810	32.810
8.4	33.544	33.544	33.544	33.544	33.544	33.544	33.544	33.544	33.544
8.5	34.280	34.280	34.280	34.280	34.280	34.280	34.280	34.280	34.280
8.6	35.024	35.024	35.024	35.024	35.024	35.024	35.024	35.024	35.024
8.7	35.770	35.770	35.770	35.770	35.770	35.770	35.770	35.770	35.770
8.8	36.524	36.524	36.524	36.524	36.524	36.524	36.524	36.524	36.524
8.9	37.280	37.280	37.280	37.280	37.280	37.280	37.280	37.280	37.280
9.0	38.044	38.044	38.044	38.044	38.044	38.044	38.044	38.044	38.044
9.1	38.810	38.810	38.810	38.810	38.810	38.810	38.810	38.810	38.810
9.2	39.584	39.584	39.584	39.584	39.584	39.584	39.584	39.584	39.584
9.3	40.360	40.360	40.360	40.360	40.360	40.360	40.360	40.360	40.360
9.4	41.144	41.144	41.144	41.144	41.144	41.144	41.144	41.144	41.144
9.5	41.930	41.930	41.930	41.930	41.930	41.930	41.930	41.930	41.930
9.6	42.724	42.724	42.724	42.724	42.724	42.724	42.724	42.724	42.724
9.7	43.520	43.520	43.520	43.520	43.520	43.520	43.520	43.520	43.520
9.8	44.324	44.324	44.324	44.324	44.324	44.324	44.324	44.324	44.324
9.9	45.130	45.130	45.130	45.130	45.130	45.130	45.130	45.130	45.130
10.0	45.944	45.944	45.944	45.944	45.944	45.944	45.944	45.944	45.944
10.1	46.760	46.760	46.760	46.760	46.760	46.760	46.760	46.760	46.760
10.2	47.584	47.584	47.584	47.584	47.584	47.584	47.584	47.584	47.584
10.3	48.410	48.410	48.410	48.410	48.410	48.410	48.410	48.410	48.410
10.4	49.244	49.244	49.244	49.244	49.244	49.244	49.244	49.244	49.244
10.5	50.080	50.080	50.080	50.080	50.080	50.080	50.080	50.080	50.080
10.6	50.924	50.924	50.924	50.924	50.924	50.924	50.924	50.924	50.924
10.7	51.770	51.770	51.770	51.770	51.770	51.770	51.770	51.770	51.770
10.8	52.624	52.624	5						

APPENDIX G

ANNUAL DATA FOR THE HISTORICAL INFLATION PROGRAM --
RAW MATERIAL PORTION ONLY

G 1

1 2 3 ANNUAL CALENDAR YEAR DATA

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
47	70.4	64.9	64.0												70.50	149.30	99.90	0.0
48	72.4	65.5	65.4												70.50	122.40	99.50	0.0
49	70.4	65.0	65.0												60.69	70.50	117.90	98.20
50	59.4	66.5	66.5												61.79	67.20	108.10	98.20
51	107.4	73.0	66.0												69.40	108.10	98.20	0.0
52	107.4	73.0	73.0												91.60	101.00	96.70	0.0
53	37.4	76.4	76.4												73.90	73.90	96.70	0.0
54	40.4	76.4	76.4												73.40	91.60	97.30	0.0
55	107.4	82.1	82.1												90.60	97.30	95.10	0.0
56	107.4	89.2	89.2												90.10	90.00	95.10	0.0
57	107.4	91.0	91.0												90.50	94.20	100.00	97.70
58	107.4	93.10	125.70	70	93.50	23.0	45.0	100.00	107.60	107.60	74.10	70.50	149.30	99.90	0.0	0.0	0.0	
59	107.4	96.70	121.50	50	96.40	40	40	100.00	106.60	106.60	80.69	70.50	122.40	99.50	0.0	0.0	0.0	
60	107.4	96.70	120.20	20	95.80	20	20	100.00	110.80	110.80	81.79	67.20	117.90	98.20	0.0	0.0	0.0	
61	62.4	70	110.60	60	97.00	70	60	100.00	111.30	111.30	75.09	69.40	108.10	98.20	0.0	0.0	0.0	
62	97.4	90.70	114.40	40	97.00	40	40	100.00	108.70	108.70	73.90	91.60	101.00	96.70	0.0	0.0	0.0	
63	97.4	93.90	107.00	00	97.00	00	00	100.00	102.90	102.90	73.40	91.60	97.30	95.70	0.0	0.0	0.0	
64	97.4	96.00	96.00	00	97.10	10	10	100.00	101.40	101.40	78.50	90.60	97.30	95.10	0.0	0.0	0.0	
65	97.4	95.46	95.00	00	91.40	30	30	100.00	99.40	99.40	68.10	90.00	90.00	95.10	0.0	0.0	0.0	
66	97.4	95.46	95.46	00	91.60	60	60	100.00	97.20	100.00	98.50	99.00	94.20	100.00	97.70	0.0	0.0	
67	107.4	107.00	107.00	00	107.00	00	00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	0.0	
68	107.4	109.70	103.10	10	108.70	40	40	100.00	102.40	102.40	95.80	107.30	105.20	99.30	0.0	0.0	0.0	
69	107.4	107.50	112.50	50	113.50	50	108.10	106.50	106.50	91.00	112.00	119.20	112.20	96.00	100.70	0.0	0.0	0.0
70	107.4	114.40	110.90	90	117.50	50	117.10	112.10	112.10	93.40	120.60	130.60	132.10	95.50	101.00	0.0	0.0	0.0
71	107.4	113.40	115.00	00	115.50	50	122.90	99.00	102.70	106.70	93.40	121.40	118.60	139.70	102.40	0.0	0.0	
72	107.4	113.40	126.40	60	130.50	50	107.60	103.60	104.50	93.50	123.20	124.50	144.90	107.00	105.00	0.0	0.0	
73	111.40	136.40	122.10	10	137.20	20	136.90	117.00	106.40	105.20	93.40	125.10	141.70	148.20	104.40	0.0	0.0	
74	111.40	167.60	157.10	10	165.90	10	157.10	153.20	153.20	126.00	150.90	162.70	173.50	132.50	111.40	0.0	0.0	
75	111.40	167.60	167.60	00	168.30	30	168.30	169.00	169.00	152.60	145.40	167.00	149.90	219.60	168.00	115.50	0.0	0.0
76	111.40	207.00	163.00	00	216.40	20	163.80	249.00	175.30	153.50	162.90	163.90	241.50	171.80	115.40	0.0	0.0	
77	111.40	259.00	197.10	10	239.40	30	219.30	270.50	200.80	165.50	211.50	166.40	259.10	170.20	119.50	0.0	0.0	
78	111.40	259.00	197.00	00	240.40	30	217.30	264.40	214.10	235.50	174.20	231.10	171.60	263.40	173.10	126.90	0.0	

MATERIAL COST DATA

APPENDIX H

MONTHLY DATA FOR THE HISTORICAL INFLATION PROGRAM --
RAW MATERIAL PORTION ONLY

H 1

MONTHLY DATA FOR MATERIALS

MONTGOMERY COUNTY

MONUMENTAL FOR
MATERIALS ONLY

APPENDIX I

HISTORICAL INFLATION INDICES :

RAW MATERIAL PORTION ONLY.

INSTITUTIONAL INFLATION
PDI - 1950 INDICES

RAW MATERIAL PORTION ONLY

AIRFRAMES, PRODUCTIVE		FIGHTER PROJECTION		AGGREGATE EXCLUDING AIR VEHICLES	
INDEX	FACTOR	INDEX	FACTOR	INDEX	FACTOR
CY67=	FY72=	CY67=	FY72=	CY67=	FY72=
100.0	1.000	100.0	1.000	100.0	1.000
47	3.1362	56.2	3.4257	21.3	3.2449
48	2.7774	41.2	3.0006	29.1	2.8653
49	2.7640	41.5	2.9852	29.2	2.8482
50	2.5949	43.7	2.6349	25.7	2.6856
51	2.3103	49.7	2.5456	28.0	2.3988
52	2.3246	49.7	2.5934	26.6	2.4093
53	2.2795	50.3	2.4695	29.4	2.3467
54	2.2557	50.7	2.4452	29.7	2.3276
55	2.1024	54.1	2.2897	31.6	2.1754
56	1.9462	55.0	2.1081	34.4	2.0077
57	1.9113	60.0	2.0666	35.0	1.9704

UNIFORM INFLATION
FISCAL YEAR INDICES
RAW MATERIAL PORTION ONLY

ITEM	FACTOR	ITEM	FACTOR	ITEM	FACTOR	AGGREGATE AIR VEHICLE		
						EXCLUDING AVIONICS	INCLUDING AVIONICS	FACTOR
63	1.011 X FY67= 1.000	63	1.011 X FY79= 1.000	63	1.011 X FY67= 1.000	54.5	54.5	1.0000
64	2.000	64	2.000	64	2.000	32.5	32.5	1.0000
65	2.000	65	2.000	65	2.000	33.0	33.0	1.0000
66	2.000	66	2.000	66	2.000	33.2	33.2	1.0000
67	2.000	67	2.000	67	2.000	32.4	32.4	1.0000
68	2.000	68	2.000	68	2.000	31.5	31.5	1.0000
69	2.000	69	2.000	69	2.000	30.1	30.1	1.0000
70	2.000	70	2.000	70	2.000	29.2	29.2	1.0000
71	2.000	71	2.000	71	2.000	29.4	29.4	1.0000
72	2.000	72	2.000	72	2.000	29.3	29.3	1.0000
73	2.000	73	2.000	73	2.000	29.6	29.6	1.0000
74	2.000	74	2.000	74	2.000	30.5	30.5	1.0000
75	2.000	75	2.000	75	2.000	30.5	30.5	1.0000
76	2.000	76	2.000	76	2.000	30.5	30.5	1.0000
77	2.000	77	2.000	77	2.000	30.6	30.6	1.0000
78	2.000	78	2.000	78	2.000	30.6	30.6	1.0000
79	2.000	79	2.000	79	2.000	31.1	31.1	1.0000
80	2.000	80	2.000	80	2.000	32.7	32.7	1.0000
81	2.000	81	2.000	81	2.000	31.8	31.8	1.0000
82	2.000	82	2.000	82	2.000	32.3	32.3	1.0000
83	2.000	83	2.000	83	2.000	32.6	32.6	1.0000
84	2.000	84	2.000	84	2.000	32.9	32.9	1.0000
85	2.000	85	2.000	85	2.000	35.9	35.9	1.0000
86	2.000	86	2.000	86	2.000	35.9	35.9	1.0000
87	2.000	87	2.000	87	2.000	35.9	35.9	1.0000
88	2.000	88	2.000	88	2.000	35.9	35.9	1.0000
89	2.000	89	2.000	89	2.000	35.9	35.9	1.0000
90	2.000	90	2.000	90	2.000	35.9	35.9	1.0000
91	2.000	91	2.000	91	2.000	35.9	35.9	1.0000
92	2.000	92	2.000	92	2.000	35.9	35.9	1.0000
93	2.000	93	2.000	93	2.000	35.9	35.9	1.0000
94	2.000	94	2.000	94	2.000	35.9	35.9	1.0000
95	2.000	95	2.000	95	2.000	35.9	35.9	1.0000
96	2.000	96	2.000	96	2.000	35.9	35.9	1.0000
97	2.000	97	2.000	97	2.000	35.9	35.9	1.0000
98	2.000	98	2.000	98	2.000	35.9	35.9	1.0000
99	2.000	99	2.000	99	2.000	35.9	35.9	1.0000
100	2.000	100	2.000	100	2.000	35.9	35.9	1.0000
101	2.000	101	2.000	101	2.000	35.9	35.9	1.0000
102	2.000	102	2.000	102	2.000	35.9	35.9	1.0000
103	2.000	103	2.000	103	2.000	35.9	35.9	1.0000
104	2.000	104	2.000	104	2.000	35.9	35.9	1.0000
105	2.000	105	2.000	105	2.000	35.9	35.9	1.0000
106	2.000	106	2.000	106	2.000	35.9	35.9	1.0000
107	2.000	107	2.000	107	2.000	35.9	35.9	1.0000
108	2.000	108	2.000	108	2.000	35.9	35.9	1.0000
109	2.000	109	2.000	109	2.000	35.9	35.9	1.0000
110	2.000	110	2.000	110	2.000	35.9	35.9	1.0000
111	2.000	111	2.000	111	2.000	35.9	35.9	1.0000
112	2.000	112	2.000	112	2.000	35.9	35.9	1.0000
113	2.000	113	2.000	113	2.000	35.9	35.9	1.0000
114	2.000	114	2.000	114	2.000	35.9	35.9	1.0000
115	2.000	115	2.000	115	2.000	35.9	35.9	1.0000
116	2.000	116	2.000	116	2.000	35.9	35.9	1.0000
117	2.000	117	2.000	117	2.000	35.9	35.9	1.0000
118	2.000	118	2.000	118	2.000	35.9	35.9	1.0000
119	2.000	119	2.000	119	2.000	35.9	35.9	1.0000
120	2.000	120	2.000	120	2.000	35.9	35.9	1.0000
121	2.000	121	2.000	121	2.000	35.9	35.9	1.0000
122	2.000	122	2.000	122	2.000	35.9	35.9	1.0000
123	2.000	123	2.000	123	2.000	35.9	35.9	1.0000
124	2.000	124	2.000	124	2.000	35.9	35.9	1.0000
125	2.000	125	2.000	125	2.000	35.9	35.9	1.0000
126	2.000	126	2.000	126	2.000	35.9	35.9	1.0000
127	2.000	127	2.000	127	2.000	35.9	35.9	1.0000
128	2.000	128	2.000	128	2.000	35.9	35.9	1.0000
129	2.000	129	2.000	129	2.000	35.9	35.9	1.0000
130	2.000	130	2.000	130	2.000	35.9	35.9	1.0000
131	2.000	131	2.000	131	2.000	35.9	35.9	1.0000
132	2.000	132	2.000	132	2.000	35.9	35.9	1.0000
133	2.000	133	2.000	133	2.000	35.9	35.9	1.0000
134	2.000	134	2.000	134	2.000	35.9	35.9	1.0000
135	2.000	135	2.000	135	2.000	35.9	35.9	1.0000
136	2.000	136	2.000	136	2.000	35.9	35.9	1.0000
137	2.000	137	2.000	137	2.000	35.9	35.9	1.0000
138	2.000	138	2.000	138	2.000	35.9	35.9	1.0000
139	2.000	139	2.000	139	2.000	35.9	35.9	1.0000
140	2.000	140	2.000	140	2.000	35.9	35.9	1.0000
141	2.000	141	2.000	141	2.000	35.9	35.9	1.0000
142	2.000	142	2.000	142	2.000	35.9	35.9	1.0000
143	2.000	143	2.000	143	2.000	35.9	35.9	1.0000
144	2.000	144	2.000	144	2.000	35.9	35.9	1.0000
145	2.000	145	2.000	145	2.000	35.9	35.9	1.0000
146	2.000	146	2.000	146	2.000	35.9	35.9	1.0000
147	2.000	147	2.000	147	2.000	35.9	35.9	1.0000
148	2.000	148	2.000	148	2.000	35.9	35.9	1.0000
149	2.000	149	2.000	149	2.000	35.9	35.9	1.0000
150	2.000	150	2.000	150	2.000	35.9	35.9	1.0000
151	2.000	151	2.000	151	2.000	35.9	35.9	1.0000
152	2.000	152	2.000	152	2.000	35.9	35.9	1.0000
153	2.000	153	2.000	153	2.000	35.9	35.9	1.0000
154	2.000	154	2.000	154	2.000	35.9	35.9	1.0000
155	2.000	155	2.000	155	2.000	35.9	35.9	1.0000
156	2.000	156	2.000	156	2.000	35.9	35.9	1.0000
157	2.000	157	2.000	157	2.000	35.9	35.9	1.0000
158	2.000	158	2.000	158	2.000	35.9	35.9	1.0000
159	2.000	159	2.000	159	2.000	35.9	35.9	1.0000
160	2.000	160	2.000	160	2.000	35.9	35.9	1.0000
161	2.000	161	2.000	161	2.000	35.9	35.9	1.0000
162	2.000	162	2.000	162	2.000	35.9	35.9	1.0000
163	2.000	163	2.000	163	2.000	35.9	35.9	1.0000
164	2.000	164	2.000	164	2.000	35.9	35.9	1.0000
165	2.000	165	2.000	165	2.000	35.9	35.9	1.0000
166	2.000	166	2.000	166	2.000	35.9	35.9	1.0000
167	2.000	167	2.000	167	2.000	35.9	35.9	1.0000
168	2.000	168	2.000	168	2.000	35.9	35.9	1.0000
169	2.000	169	2.000	169	2.000	35.9	35.9	1.0000
170	2.000	170	2.000	170	2.000	35.9	35.9	1.0000
171	2.000	171	2.000	171	2.000	35.9	35.9	1.0000
172	2.000	172	2.000	172	2.000	35.9	35.9	1.0000
173	2.000	173	2.000	173	2.000	35.9	35.9	1.0000
174	2.000	174	2.000	174	2.000	35.9	35.9	1.0000
175	2.000	175	2.000	175	2.000	35.9	35.9	1.0000
176	2.000	176	2.000	176	2.000	35.9	35.9	1.0000
177	2.000	177	2.000	177	2.000	35.9	35.9	1.0000
178	2.000	178	2.000	178	2.000	35.9	35.9	1.0000
179	2.000	179	2.000	179	2.000	35.9	35.9	1.0000
180	2.000	180	2.000	180	2.000	35.9	35.9	1.0000
181	2.000	181	2.000	181	2.000	35.9	35.9	1.0000
182	2.000	182	2.000	182	2.000	35.9	35.9	1.0000
183	2.000	183	2.000	183	2.000	35.9	35.9	1.0000
184	2.000	184	2.000	184	2.000	35.9	35.9	1.0000
185	2.000	185	2.000	185	2.000	35.9	35.9	1.0000
186	2.							

DISINTEGRATION
OF POLY(1,3-PHENYLICOLIC ACID).

KAPITALISTAI POKLON ONLY

1.2635	52.5
1.2553	52.9
1.2482	53.1
1.2271	53.1
1.2226	54.0
1.2026	55.1
1.2014	55.2
1.2021	55.2
1.2030	55.6
1.1935	55.6
1.1889	55.8
1.1715	56.6
1.1662	57.4
1.1417	58.1
1.1382	58.3
1.1235	59.0
1.1217	59.1
1.1263	59.3
1.1252	59.9
1.1226	59.9
1.1226	59.9
1.1241	59.9
1.1213	59.9
1.1049	60.0
1.1042	60.1
1.0979	60.4
1.0930	60.8
1.0803	61.4
1.0671	62.1
1.0673	62.1
1.0674	62.1
1.0637	62.3
1.0552	62.8
1.0460	63.8
1.0460	64.6
1.0451	64.6
1.0346	64.5
1.0226	64.7
1.0226	65.3
1.0184	65.8
1.0135	66.5
1.0094	67.2
1.0018	69.9
0.9986	71.4
0.9884	72.3
0.9553	69.5
0.9445	73.1
0.9445	73.1
0.9404	70.5
0.9330	71.0

DISINTEGRATION
DESTRUCTIVE INFLUENCES
RAW MATERIAL PORTION ONLY

AVERAGE PROLONGED EXPOSURE TIME	TOTAL EXPOSURE TIME	AVIATION		AGRICULTURE		AIR VEHICLE		AGGREGATE AIR VEHICLE INCLUDING AVIONICS	
		FACTOR	FACTOR	FACTOR	FACTOR	FACTOR	FACTOR	FACTOR	FACTOR
1000 X C16.7	1000.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
QTR 0.0	100.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 0.7	24.1	1.024	2.3642	31.4	1.5319	30.4	2.2732	30.5	2.1764
4 0.6	24.5	2.119	2.2462	31.3	1.5365	30.9	2.2369	30.9	2.1459
3 0.5	24.5	2.170	2.2802	31.3	1.5374	31.2	2.2157	31.2	2.1274
2 0.4	24.5	2.170	2.2791	31.3	1.5383	31.1	2.2192	31.1	2.1307
1 0.3	24.6	2.184	2.2751	31.2	1.5428	31.2	2.2107	31.2	2.1240
0 0.2	24.5	2.173	2.2658	31.2	1.5419	31.1	2.2199	31.1	2.1316
-0.1 0.1	25.0	2.152	2.2238	31.4	1.5516	31.6	2.1680	31.8	2.0863
0 0.2	25.4	2.093	2.1970	31.7	1.5215	32.4	2.1527	32.3	2.0531
1 0.3	25.6	2.077	2.1702	31.7	1.5193	32.6	2.1449	32.5	2.0373
2 0.2	25.9	2.050	2.0995	32.0	1.5098	33.9	2.0372	33.7	1.9681
3 0.1	26.1	2.040	2.0403	31.7	1.5215	34.8	1.9635	34.5	1.9227
4 0.0	26.3	2.023	1.9030	31.7	1.5224	34.9	1.9766	34.6	1.9167
5 0.0	26.3	2.023	1.9044	31.9	1.5132	35.0	1.9748	34.6	1.9139
6 0.0	26.3	2.023	1.9994	31.9	1.5063	35.0	1.9731	34.7	1.9115
7 0.0	26.3	2.023	1.9067	32.1	1.5063	35.0	1.9743	34.7	1.9100
8 0.0	26.4	2.010	1.8747	32.7	1.2874	35.0	1.9440	35.2	1.8839
9 0.0	26.4	2.010	1.8584	32.4	1.2915	35.5	1.9440	35.2	1.8839
10 0.0	26.4	2.010	1.8032	31.7	1.2930	35.5	1.9281	35.5	1.8697
11 0.0	26.4	2.010	1.8032	32.5	1.2933	35.5	1.9319	35.4	1.8736
12 0.0	26.4	2.010	1.8079	32.5	1.2933	35.5	1.9731	35.5	1.8686
13 0.0	26.4	2.010	1.8079	32.5	1.2933	35.5	1.9327	35.4	1.8726
14 0.0	26.4	2.010	1.8079	32.7	1.2932	35.7	1.9763	34.7	1.9110
15 0.0	26.4	2.010	1.8079	32.7	1.2824	34.9	1.9440	34.7	1.9110
16 0.0	26.4	2.010	1.8079	32.5	1.2678	34.9	1.9815	34.6	1.9163
17 0.0	26.4	2.010	1.8079	32.6	1.2928	35.0	1.9694	34.8	1.9050
18 0.0	26.4	2.010	1.8079	32.6	1.2933	35.0	1.9319	35.5	1.8695
19 0.0	26.4	2.010	1.8079	32.7	1.2933	35.5	1.9327	35.4	1.8726
20 0.0	26.4	2.010	1.8079	32.7	1.2710	35.7	1.9763	34.7	1.9110
21 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
22 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
23 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
24 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
25 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
26 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
27 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
28 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
29 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
30 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
31 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
32 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
33 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
34 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
35 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
36 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
37 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
38 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
39 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
40 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
41 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
42 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
43 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
44 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
45 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
46 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
47 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
48 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
49 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
50 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
51 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
52 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
53 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
54 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
55 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
56 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
57 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
58 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
59 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
60 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
61 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
62 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
63 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
64 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
65 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
66 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
67 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
68 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
69 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
70 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
71 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
72 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
73 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
74 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
75 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
76 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
77 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
78 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
79 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
80 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
81 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
82 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
83 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
84 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
85 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
86 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
87 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
88 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
89 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
90 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
91 0.0	26.4	2.010	1.8079	32.7	1.2645	35.7	1.9763	34.7	1.9110
92 0.0	26.4	2.010	1.8						

HISTORICAL INFLATION
FISCAL YEAR INDICES
RAW MATERIAL PORTION ONLY

INDEX	FACTOR	ENGINE PRODUCTION	PRODUCTIVE AVIONICS PRODUCTION	AGGREGATE AIR VEHICLE INCLUDING AVIONICS		AGGREGATE AIR VEHICLE INCLUDING AVIONICS	
				INDEX CY67=1.0000	FACTOR FY78=1.0000	INDEX CY67=1.0000	FACTOR FY78=1.0000
FY							
68	29.3	1.9784	53.8	2.0921	31.3	1.2553	30.9
69	24.9	1.9333	55.2	2.0380	31.4	1.2533	31.6
70	26.0	1.8522	62.3	1.8051	31.8	1.2381	31.4
71	26.2	1.8391	66.1	1.7018	32.2	1.2205	35.1
72	26.5	1.8191	68.3	1.6461	32.5	1.2109	35.0
73	26.8	1.7977	61.4	1.7459	32.7	1.2039	35.1
74	25.4	1.6349	70.8	1.5900	33.6	1.1722	38.6
75	37.9	1.2710	93.9	1.1976	36.4	1.0811	50.3
76	40.2	1.1961	96.6	1.1619	36.1	1.0660	52.6
77	43.0	1.1165	101.5	1.1083	36.4	1.0804	56.0
78	44.9	1.0723	109.0	1.0323	37.2	1.0566	59.1
	46.1	1.0000	112.5	1.0000	39.3	1.0000	62.4

*DARCO MIDWEST SEC**
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MAP 80-2104. FWD. 1.6114. *WATER
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